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# MUTUALLY ASSURED CONSTRUCTION

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Æthelflæd's burhs, Landscapes of Defence and the Physical Legacy  
of the Unification of England, 899-1016



Submitted by David John Fiander Stone to the University of Exeter  
as a thesis for the degree of  
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## Abstract

*This thesis examines the physical legacy left by the unification of the Kingdom of England during the tenth century, and seeks to redress the way in which the Kingdom of Mercia is often overlooked or discounted in the traditional historical narrative. It principally examines the means by which Æthelflæd of Mercia extended political and military control over the West Midlands, both in terms of physical infrastructure and through 'soft' power in terms of economic control and material culture. It uses landscape archaeology, artefactual and textual evidence to compare Mercia with its ally, Wessex, and assess the different means by which Æthelflæd of Mercia and her brother Edward the Elder were able to consolidate and expand their territory, the physical infrastructure they established in order to defend it, and the ways in which these sites developed in response to the changing political, military and economic climates of the later tenth century. It will assess why some defensive sites developed into proto-urban settlements while others disappeared, and the extent to which this was a conscious or planned process. This thesis seeks to overturn the idea that burhs constructed in Mercia were insignificant or unplanned 'emergency' sites and instead were part of a sophisticated network of landscapes of defence, reflecting a significant level of manpower and logistical investment on the part of the Mercian state. It will furthermore seek to explore the ways in which the Mercian state supported such a network, how sites were chosen, constructed, maintained and garrisoned, and the impact these sites had both on the local population, in terms of patterns of settlement and material culture, and on the wider political scale.*

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## Notes on Abbreviations and References

ASC	<i>The Anglo-Saxon Chronicle</i>  Whitelock, D. (ed.) (1961), <i>The Anglo-Saxon Chronicle</i> , London: Eyre and Spottiswoode
EMC	Fitzwilliam Museum Corpus of Early Medieval Coin Finds
HER	Historic Environment Records, denoted by county e.g. CHER for Cheshire
NMR	National Monuments Record
PAS	Portable Antiquities Scheme ( <a href="http://finds.org.uk">finds.org.uk</a> )
S	Sawyer, P.H. (1968), <i>Anglo-Saxon Charters: An Annotated List and Bibliography</i> , London: Beekman. Now revised, Kelly, S.E., <i>The Electronic Sawyer</i> ( <a href="http://www.esawyer.org.uk">http://www.esawyer.org.uk</a> ), cited by document number.
SCBI	<i>Sylloge of Coins of the British Isles</i>

Unless specified, all references to *Domesday* are taken from the University of Hull Open Domesday Project, Palmer, J. and Powell-Smith, A. (2008) ([opendomesday.org](http://opendomesday.org))

## Mutually Assured Construction:

### Æthelflæd's *burhs*, Landscapes of Defence and the Physical Legacy of the Unification of England, 899-1016

The late ninth and early tenth centuries were the time of a remarkable change of fortunes for the Anglo-Saxon kingdoms of England, from desperate defence against Viking invasions and near collapse in the 870s to the establishment of a unified Kingdom of England under Æthelstan in the 920s. The enduring narrative of this period was largely established by the nineteenth-century proliferation of popular histories of the Anglo-Saxons which accompanied the millennium of Alfred's accession to the throne of Wessex in 871, drawing on a recent spate of translations as well as intermittent works, and which sought to frame Alfred the Great and his dynasty as crucial to this story of success (Parker, 2007; Spelman, 1678; Wise, 1742; Turner, 1805; Kelsey, 1852; Hughes, 1873; Besant, 1901). Indeed Alfred and his descendants, the West Saxon royal house descended from Cerdic and dubbed *Cerdicings*, are central to the contemporary narrative of the *Anglo-Saxon Chronicle* which culminates in Æthelstan bringing under his rule 'all the kings who were in this island' in 927 (ASC, MS.D, s.a.927, Whitelock, 1961, 68-69). Often overlooked, however, is the intervening period between Alfred and Æthelstan, when Wessex was under the reign of Edward the Elder and Mercia ruled by his sister Æthelflæd. This period was central to the expansion and consolidation of English territory from the boundaries famously established by Alfred's 'Danelaw' treaty with Guðrum to the nascent English kingdom inherited by Æthelstan in 924. It was also crucial to the coalescing of politics, culture and trade between the kingdoms of Wessex and Mercia into a nascent English identity which would allow Æthelstan's unification to occur.

Often overlooked by history, Æthelflæd's personal leadership and achievements are remarkable, yet so too are the achievements of the resurgent Mercian state over which she presided. She was clearly both a shrewd political operator and an effective military leader; despite her prominent West Saxon ancestry, she was able to maintain the loyalty of the Mercian people and rule them independently, preserving a level of Mercian political independence even from her own family. Militarily, Mercian armies proved crucial to the defence of England, not least in 893 and 911, and played an active role in the reconquest of the Midlands alongside Edward's West Saxon forces. Æthelflæd appears to have led her forces during these campaigns personally, as well as leading them on punitive expedition into Wales in 916. At least as important as

these military successes, however, was the legacy of state, military and civil infrastructure which Æthelflæd and her husband constructed in the West Midlands, which not only provided safety, security and growth to the existing state of Mercia and allowed for its expansion, but also which formed the physical foundations which allowed Mercia to become a part of the nascent Kingdom of England and to integrate with the country on a national scale.

Central to this infrastructure is the network of *burhs* built across the West Midlands between 899 and 918, an extension of Alfred's fortress network and a counterpart to Edward's network in the east. This thesis investigates the series of *burhs* built by Æthelflæd within both the context of the Mercian resurgence and expansion of control in the West Midlands as well as in the wider context of the expansion and development of the nascent English kingdom in the early tenth century. It aims to challenge the long-standing narrative that these sites are *ad-hoc* fortifications built disparately to solve short-term problems, and argues that instead these sites were central nodes of a sophisticated system of political, military and economic control designed to secure Mercia from outside threats and provide a foundation for both internal development and external expansion. Furthermore, it aims to show that these sites were conceived as part of an overlapping series of networks which would facilitate their later integration into the developing power structures of the Kingdom of England.

Although many of these Mercian burghal sites have been excavated and investigated extensively in their own right, no site exists in isolation, and this study takes inspiration from the 2014 *Beyond the Burghal Hidage* project, which re-approached the familiar *burhs* of Wessex militarily as central hubs in wider 'landscapes of defence' (Baker and Brookes, 2013, 118). This study seeks to interpret the West Midlands *burhs* in a similar fashion; to approach them not as 'proto-towns' or isolated fortresses, but instead as facets of a dispersed network of regional political, military and economic control. In particular, it examines the ways in which these sites were conceived to act as part of wider networks, be they military or civil, and the means by which such networks were constructed and maintained. It also examines the ways in which burghal construction and planning reflected the changing strategic situation and political needs of the state, and how these changes also affected the development and survival of the burghal network, as well as the logistical and organisational capacities of the Mercian state which such networks represent. In particular, this study will focus on the borderlands of Mercia in Cheshire, Staffordshire and Shropshire.

From this, there are four main avenues of inquiry into the planning, function, maintenance and development of the burghal network, which I have then defined into

two principal classes: active and passive networks. Active networks can be defined as those which entail input and maintenance from the state in order to be established and maintained, and are indicative of top-down attempts by Æthelflæd and her state, and successive kings of England, to create structures of power and control and impose them on the landscape. The most blatant expression of this is the construction of the *burhs* themselves, not only through the physical control of strategic locations and frontiers, but also through the abilities to project force and Mercian political and military authority over their hinterlands. Chapter 2 focuses on the archaeology of three of the Mercian *burhs*, Eddisbury, Bridgnorth and Chirbury, in order to investigate how their planning, construction and maintenance reflect the defensive needs of Mercia, the military and logistical capabilities of Æthelflæd's state and the ways in which the changing strategic and political landscapes of the tenth century were shaped by, and in return shaped, the burghal network.

Intrinsic to the operation and function of the *burhs* are the transport, communication and control networks which would have been necessary to maintain defences and garrisons, and respond to threats. This will be discussed in Chapter 3, which uses the approach of landscape archaeology to investigate the means by which *burgh* garrisons were able to communicate and project control over the landscape, strategic points and the Mercian borders. In particular, this will focus on the physical points from which civil defence was maintained and control was exercised, the ways by which these locations were chosen and the roles they fulfilled, and the re-use and re-purposing of earlier sites by the Mercian state. The logistics of maintaining burghal garrisons are also discussed in Chapter 5.

Alongside these, passive networks can be defined as those which developed organically in conjunction with the expansion of the Mercian state and the burghal system, rather than being fostered at a governmental level. Not all topics within these categories are mutually exclusive; Chapter 4 is a numismatic study of the activity and distribution of the West Midlands mints established in the Æthelflædan *burhs* over the course of the tenth century, and evaluates the extent to which mint activity in the West Midlands was a conscious effort by Æthelflæd, Æthelstan and later kings to establish prestige centres of royal authority, and to what extent it reflects the natural development of trade and commerce in the hinterlands of government development, as well as the extent to which Mercia was integrated into a wider English economic network. Chapter 5 examines the archaeological record of late-ninth- and tenth-century portable material culture in the West Midlands from a similar perspective, focusing on two main areas, ceramics and decorative metalwork, to investigate the extent to which Mercian material culture emulated tenth century trends in the rest of England. This also

investigates the ways in which the development of 'active networks' such as the burghal system and its attendant transport links and surveillance and security networks allowed for the development of trade, commerce and settlement, and examines the logistical capacity of the state in maintaining dispersed garrisons throughout a landscape of defence in depth. Each of these chapters will have its own discipline and methodology described within.

Overall, this thesis aims to provide a new interpretation of the Mercian *burhs* which approaches them as more than just individual proto-urban sites or fortification, but rather as elements of a cohesive network of sites with supporting links and hinterlands. It is hoped that by approaching the *burhs* as a network of sites, this will provide a new insight into the extent to which these installations shaped or were shaped by the political and military landscape in which they were established, provide an illustration of the political and logistical capacity of the Mercian state within tenth-century England, and show the extent to which these sites were key to the extension of nascent English authority and power and the development of a wider English culture and identity.



## I: The State of Play:

### Anglo-Saxon History, 'Burghal Hidage Studies' and Mercia

The first quarter of the tenth century was one of the most pivotal periods in the development and unification of England, yet remains one of the most obscure periods in medieval English history, overshadowed by the major events in the decades preceding and following it. Until very recently, this was even further the case when examining the physical remains and archaeology of the period. Both historically and archaeologically, focus has been given to the reign of Alfred of Wessex (871-899) and his grandson Æthelstan (924-939), *Rex totius Britanniae*, largely at the expense of the reign of Edward the Elder (899-924). Particularly overlooked is the kingdom of Mercia, ruled between c.880 and 919 by Alfred's daughter Æthelflæd, first in conjunction with her husband Ealdorman Æthelred, and later independently, and where Æthelstan was largely raised.

The Victorian predilection for celebrating 'great men' of history remains evident today throughout studies of what Frank Stenton called in 1943 'The Age of Alfred' (Stenton, 1971, 239). The 'cult of Alfred' which developed in the nineteenth century, benefiting from the extensive textual and literary sources surviving from his reign, promulgates the idea of Alfred as saviour, builder and innovator, who laid the foundations upon which his grandson Æthelstan could build his Kingdom of England and win 'undying glory in battle' at *Brunanburh* (Parker, 2007, 38-40; ASC, MS.D, s.a.937, Whitelock, 1961, 70). Æthelstan's own reign and achievements are lauded to an extent perhaps second only to his grandfather, yet of his father, Edward the Elder, remarkably little is written. This should not necessarily be seen as surprising; while Alfred is immortalised through both his own writings and Asser's biography, and Æthelstan's deeds are recorded in poetic verse in the *Anglo-Saxon Chronicle*, Edward's intervening twenty-five-year reign is recorded largely as an extensive list of battles won and fortresses built, an 'inexorable advance' to which the narrative rarely adds qualifying information or much by way of expansion (Stenton, 1971, 335; Higham, 2001, 1). It is perhaps due to this that little study was made of Edward's reign on its own merits, rather than as merely a continuation period from Alfred to Æthelstan, until the 1100<sup>th</sup> anniversary of Edward's accession to the throne of Wessex in 1999. Even then, while Edward's historical neglect was acknowledged, it was emphasised how little was still known about his reign, with Campbell commenting that the scale and scope of the contemporary written evidence for Edward's rule are 'out of all proportion to those of his conquests and achievements' (Campbell, 2001, 12).

Though little was written or studied about Edward, this is even more the case with the reign and achievements of his older sister Æthelflæd, who ruled Mercia for likely some twenty-five years alongside her husband Ealdorman Æthelred, and after his death independently for another eight. Æthelflæd's marriage is recorded by Asser, but the main text of the *Anglo-Saxon Chronicle* mentions her only to record her death in 918 (Asser, *Life of King Alfred*, §75, Keynes and Lapidge, 2004, 90; ASC, MS.A, s.a.918, Whitelock, 1961, 66). The sole contemporary historical source for Æthelflæd's rule of Mercia is the *Mercian Register*, a history likely commissioned by Æthelflæd as a regional counterpart to the *Anglo-Saxon Chronicle* and retrospectively dovetailed or inserted into that work in block form by its various compilers and scribes (Whitelock, 1961, xxxi-xxxii). Mercia itself is also largely side-lined in the triumphalist West Saxon narrative of the *Anglo-Saxon Chronicle*; popular historical consciousness still regularly considers Mercia as the former preeminent kingdom collapsed into defeat and irrelevancy following the Battle of Repton and the partition in 874, despite numismatic and Welsh historical evidence to the contrary (*Annales Cambriae*, s.a.878, Dumville, 2002, 12; Charles-Edwards, 2001, 102; Keynes, 1998, 18).

It should not be a surprise that the resurgent Mercia which supported Alfred at London in 886 and was a valuable ally and partner in the reconquest of England should be so overlooked by a chronicle keen to glorify Wessex and emphasise the West Saxon nature of the emergent English nation, despite the role played by Alfred's daughter in that same Mercian resurgence. Wainwright's 1959 paper on Æthelflæd, 'Lady of the Mercians' places her at the centre of early tenth-century politics, arguing that Edward's successes against the Vikings depended in a large part on Æthelflæd's 'vital' co-operation (Wainwright, 1959, 68-69). To the Welsh and Irish, whose contact with England ran mostly via Mercia, she was the *famosissima regina Saxonum* of the Annals of Ulster, and indeed Stenton notes that 'it was through reliance on her guardianship of Mercia that her brother was enabled to begin the outward movement against the southern Danes' (Wainwright, 1959, 64-66; Stenton, 1971, 324). Her omission, and that of Mercia generally, from the West Saxon chronicles of the *Anglo-Saxon Chronicle* is, he argues, due to a 'conspiracy of silence' designed to remove Æthelflæd's contribution to unification and prevent her legacy becoming the cornerstone of a Mercian independence movement which could question the legitimacy of Edward's rule of a united England (Ibid.).

Stafford argues that a Mercian separatism was unlikely to underlie Æthelflæd's instigation of the 'Mercian Register', but rather that it was a response to the

continuation of the Alfredian narrative of the *Anglo-Saxon Chronicle* in Wessex (Stafford, 2008, 115). The importance of Æthelflæd's gender in this cannot be overemphasised, and indeed Stafford states that the 'Annals of Æthelflæd' are 'remarkable' in their subject matter, as well as their geographical focus (Stafford, 2008, 101). A central theme of the *Mercian Register*, alongside chronicling Æthelflæd's political and military achievements, is underlining the divine legitimacy of her rule. As well as carrying royal duties, receiving oaths and leading militarily, Æthelflæd holds her *onweald* 'with right lordship' and with divine approval (Stafford, 2008, 102). In her fleeting mentions in the 'A' chronicle of the *Anglo-Saxon Chronicle*, Æthelflæd is relegated to merely being Edward's sister, yet in provisioning her own history in the tradition of her father's patronage of the *Anglo-Saxon Chronicle* at Winchester, she could ensure that her contribution to the English state was not overlooked. Indeed, Stafford highlights that the *Mercian Register* focuses on Æthelflæd at the general omission of her late husband or her brother, and suggests that this is a conscious emphasis of her right to rule independent of the male figures which may have questioned her legitimacy, not least because Alfred's late wife, and Edward's mother, was Mercian (Stafford, 2008, 103 and 110).

With the West Saxon chronicle acting to legitimise Edward's unification of England under his rule, Æthelflæd's own chronicle may have acted not as a font for Mercian separatism, but rather to ensure that the efforts of both Alfred's heirs were taken into account, and that Mercia would have an equal place in the newly-forming English polity. With internecine positioning for dynastic control, Æthelflæd's daughter may have been seen as a rival to Edward's own descendants, and Wainwright detects a 'bitterness' in the *Mercian Register* account of Edward's coup of 919, and a determination that Ælfwyn's name be remembered (Wainwright, 1959, 64-66). Æthelflæd's intentions may well have borne fruit, in Æthelstan's being 'chosen by the Mercians' as king after his father and brother both died in 924 (Stafford, 2008, 115, ASC, MS. A and *Mercian Register* s.a. 924, Whitelock (ed.), 1961, 68). That the *Anglo-Saxon Chronicle* omits the death of Ælfweard may be an attempt on the part of its authorship to disguise that Æthelstan, raised in Mercia by Æthelflæd, was not the first in line to the throne, but gained power following his brother's death through Mercian support. This culmination of Mercian authority in deciding the political foundations of the new English nation must be seen as a success on the part of Æthelflæd, even if it was not her daughter ruling Mercia. It will therefore be central to examine the extent to which Mercian influence can be seen throughout Æthelstan's reign, and whether Mercia retains its influence into the later tenth century.

Any history of the Anglo-Saxon *burhs* almost inevitably becomes intertwined with a wider historical focus on the development of urban and proto-urban sites throughout the period, and this is no less the case when approaching Æthelflæd's Mercian series. History and archaeology of the Mercian network is often subsumed within an investigation of wider developing urban sites and their relation in particular to the West Saxon system which preceded and mirrored them. The development of urbanism is one of the most prominent topics in the study of Anglo-Saxon history, but any discussion, whether historical, archaeological or numismatic, is almost inevitably drawn to discuss at least one of two closely related matters of debate: the West Saxon Burghal Hidage; and the evolution of Anglo-Saxon sites and settlements, usually those listed within that document, into what could be recognised by modern standards as towns with urban activity, and the factors which influenced which sites did, or did not, come to fulfil an urban function. The importance of the Burghal Hidage to the field of Anglo-Saxon urban studies is hard to overstate, to the extent that study of towns, fortification or defence during the 'Age of Alfred' and his successors has often become synonymous with 'Burghal Hidage studies' (Stenton, 1971, 239; Hill, 1996, 5). Although Dorothy Whitelock did not deem it of sufficient significance to include in her 1955 compilation of *English Historical Documents*, a 'salutary reminder that not all Anglo-Saxonists assign the same importance to the document' (Hill, 1996, 9), the Burghal Hidage has nonetheless come to represent the main focus for any investigation into late Anglo-Saxon fortified sites and continues to dominate the literature (Williams, 2001, 308; Baker and Brookes, 2013). This is not without good reason. The Burghal Hidage is 'an attractively succinct administrative document' which forms a comprehensive picture of the organisation of state control of civil defence in ninth- and early tenth-century Wessex, listing thirty-one *burhs* of Wessex, the hides necessary to support them, and the famous calculation by which any of the variables of wall length, garrison size and tithed land may be calculated from the others (Brooks, 1996, 128; Rumble, 1996a, 14-35).

The beginning of Burghal Hidage Studies is most usually attributed to F.W. Maitland, who indeed named the document in 1897 as part of his studies into the hidation of England in *Domesday Book*, and who imbued it with the 'highest importance' (Maitland, 1897, 230). Maitland's work opened up several avenues for further study which have dominated studies of late Anglo-Saxon urbanisation and defence: the role of towns as local defensive and administrative centres in the expansion of royal authority and the development of shires; and those sites which were once *burhs* but which 'forfeited their burghal character' in the tenth century and why they "failed" to achieve urban status (ibid.).

## Enclosures, Forts and Towns: Burghal Terminology

When approaching the Burghal Hidage or the fields of Anglo-Saxon urbanism, military or defence, it is important to always be mindful of the language and terminology which has shaped discussion and historiography thus far. The very use of the term '*burh*' when describing these sites has become synonymous in the late Anglo-Saxon period with the fortified centres which have come to typify Alfred's military and defensive policy and which make up the bulk of sites in the Burghal Hidage. However, this was far from the first use of the word in Old English, which has become one of the most important "habitative" elements in English place-names (Draper, 2008, 240). The etymology of '*burh*' is from the Old English verb *beorgan*, 'to protect or shelter' and before Alfred's defensive reforms, the term appears to have been related to an array of different sites and forms of enclosure. A.H. Smith associated the term with a 'full range of topographical associations' from 'ancient pre-English earthwork or encampment' to 'Roman camp', 'fortified manor' and 'market town' although the general theme implies a fortified centre (ibid.; Smith, 1956, 58-62). As Simon Draper stated in 2008, however, none of the known centres listed in the Burghal Hidage as defensive places carry the place name elements '-borough', '-brough', '-burgh' or even '-bury', the most common suffix deriving from the dative singular of *burh*, *byrig* (Draper, 2008, 247). In use to describe a fortified enclosure, or perhaps even just a delineated settlement, '*burh*' had become attached to both royal enclosures and villas, and monastic and minster settlements prior to its adoption to mark Alfredian defensive sites – an association which proves significant. Given the eventual urban status of many sites, attempts have been made to link *burh* sites and urban development with a series of prerequisites, from royal villas and estates to royal monasteries, aristocratic residences and the *wic* trading towns which developed at hubs of trade during the seventh and eighth centuries and which were generally in close proximity to, or replaced by, *burh* sites in the ninth and tenth centuries in the face of Viking attack (Chadwick, 1905, 255; Stenton, 1970, 317-321; Corcos, 2002, 9; Campbell, 1979, 120-125).

This gradual urban association is supported by clause 14 of Æthelstan's Grately code – an earlier series of economic and financial statutes on minting, trade and their relation to settlements inserted into a later code. Alongside mandating urban trade and maintenance of defences, the Grately code also assigns the number of moneyers to each *burh* where minting is to occur while clause 14.2 states that '*nan mon ne mynetige buton on port*' (no minting is to occur but that in a *port*) (British Library MS Cotton Titus A.XXVII, fos. 121r-121v; Whitelock, 1979, 420). The term *port*, while also implying a degree of fortification, carries definite urban connotations which would indicate a defended town (Blackburn, 1996, 160). That either Æthelstan or the

individual charged with drawing up clause 14 on his behalf saw *port* and *burh* as interchangeable terms illustrates the extent to which '*burh*' was becoming synonymous with specific urban sites. Nonetheless, we must not let this association blind us to those *burhs* which did not later form the basis of towns, or assume that a lack of urban activity signifies that these sites in some way failed in their purpose. Indeed, in examining the roles and purposes of a burghal site, John Baker argues that while it is convenient to categorise sites by their political, social, or religious functions and status and to differentiate between royal, manorial, military and minster sites, there may have been considerable overlap in the roles of 'high-status enclosed sites' (Baker, 2013, 69). Similarly, Martin Carver argues that while fort and town must not be taken synonymously, this does not necessarily make them mutually exclusive; while a *burh* should not be taken to indicate an urban presence, this should not be taken to mean that it was thus necessarily lacking one (Carver, 2010b, 1). The roles of burghal sites will be discussed in detail below, but it is important when approaching this topic that these were multi-faceted sites which should not be judged purely on their urban function and to stress that our evaluation of them should not be restricted by the narrow modern definitions of the terms "town", "monastery" and "fortress" (Draper, 2008, 249).

Particular care must be taken when dealing with the nomenclature of sites in Mercia, and determining the extent of Æthelflæd's series. This is due to the confusion which arises from the classification of many Mercian urban fortified sites as *burhs* even though this is not strictly the case. Carver's map of Æthelflæd and Edward's *burhs* (Carver, 2010b), for example, lists Gloucester and Hereford among the Mercian series, and Bassett's 2008 summary of tenth-century Mercian urban defences focuses on Hereford, Worcester and Winchcombe alongside Tamworth (Bassett, 2008, 182). As examples of tenth-century fortified settlements, it is easy to see how a traditional approach to these sites, informed by the development and evolution of the *Burghal Hidage* centres, has led to the inclusion of Mercian urban sites within the category of *burh*, however this may in fact be erroneous. Like her brother with the *Anglo-Saxon Chronicle*, Æthelflæd's *Mercian Register* extensively chronicled her programme of burghal fortification throughout Mercia, and lists eleven sites: Chester, *Bremesbyrig*, *Scergeat*, Bridgnorth, Tamworth, Stafford, Eddisbury, Warwick, Chirbury, *Weardbyrig*, and Runcorn (*Mercian Register*, s.a.907-919, Whitelock, 1961, pp61-67). Prominent Mercian settlements and civic centres such as Worcester, Gloucester and Lichfield are conspicuous by their absence, and indeed many of the sites listed in the *Mercian Register* are noticeably rural, or lacking in substantial settlement. It has been suggested that this indicates new builds, and that larger Mercian settlements were also *burhs* with their fortification simply not chronicled, however, as discussed later, it can

be seen that unlike the *Burghal Hidage* series, Æthelflæd's Mercian series represents a separate system of fortified sites quite distinct from the Mercian urban centres and one which reflected different strategic and logistical priorities from its West Saxon predecessor. Indeed, it will be shown that Æthelflæd's *burhs* form a separate, yet mutually supportive network operating alongside a wider programme of fortification of urban centres.

It is also important to discuss other important elements of terminology at this juncture. Central to discussion of the function of wider defensive networks (see below) is the nomenclature of the non-burghal defences which would have provided primary refuge for large swathes of the Anglo-Saxon population. Barbara Yorke remarks that the *Anglo-Saxon Chronicle* is considerably vague on the composition and design of even burghal fortifications, and that its authors, when discussing non-burghal series, seem content to remark merely that they existed (Yorke, 2011, 92-3). Fortifications are rarely explicitly described, but palisaded enclosures with gates are often alluded to (Ibid.). In chronicling the nine battles between Anglo-Saxon and Viking forces in 871, the ASC refers to many of their sites as *villa regia*, yet Asser refers to them as *arx*, which Yorke translates as a stronghold or fortification (Asser, §36, Keynes and Lapidge (ed.), 1983, 78; Yorke, 2011, p.95). Asser refers to the Vikings having constructed a rampart at Reading, but it is not explained whether this is a new fortification or merely an extension to the prior defences which one might expect at a royal vil.

When the Vikings attacked Devon in 878, the local defenders ensconced themselves within the *arx* at *Cynuit*, before counter-attacking and winning the day (Asser, §54, Keynes and Lapidge (ed.), 1983, 83-84). This *arx* was most likely either a small earthwork fort at Countisbury, or a nearby Roman signal station at Old Burrow, but either way was 'poorly fortified', with only some recently-erected earthen ramparts. In contrast to these, during Edward the Elder's brief siege of the royal residence and prominent minster at Wimborne in 899, his rebellious nephew Æthelbold 'barricaded all the gates against him' (Yorke, 2011, p.98; ASC MS. C, s.a.900, Whitelock (ed.), 1961, 58-59). The implied defensive circuit at Wimborne was apparently sufficient to give Edward enough pause to establish his own siege camp at the Iron Age hillfort at Badbury Rings a short distance outside the town rather than immediately storm the walls, but was not expanded upon and leaves no trace in the present day. The disparity in fortification we can infer between just these two sites illustrates the wider issue of accurately describing with any consistency the level of fortification at local defensive nodes within the wider burghal network (see below). For ease of understanding, therefore, Asser's *arx* will be borrowed, and the term 'stronghold' used in reference to

any non-burghal fortification from Iron-Age hillforts to surviving Roman circuits, and new Anglo-Saxon ramparts.

Alongside the terminology for the physical structures established during this period, it is also centrally important to define appropriate nomenclature for the structures of political control used in Mercia. Since the death of Ceolwulf II in c.881, Mercia had been under the rule of Ealdorman Æthelred, and neither he nor Æthelflæd made any further reference to a Mercian kingdom, nor styled themselves *rex* or *regina*. In lieu of 'kingdom', the term 'Mercian state' is often used to frame the political structures of governance employed by Æthelred, Æthelflæd and their thegns and ealdormen, yet this can carry unintentional connotations: With documentary evidence such as the *Burghal Hidage*, it is tempting for a modern audience to envision tenth century polities functioning in much the same way as a current bureaucratic government, and indeed even historians have ascribed modern state functions to the tenth century (Campbell, 1975, 39). For many Victorian historians, the ninth and tenth centuries were enthroned as originating a proud British tradition of centralised, bureaucratic, and even democratic, government (Parker, 2007, 38-40). Such anachronism serves both to create an overly-ambitious view of Anglo-Saxon governance as well as overshadow the actual organisation achievements of the *Cerdicings* (Molyneaux, 2015, 112).

Molyneaux argues that interaction with government was an occasional activity for the majority of the Anglo-Saxon population, contained largely to activity at burghal sites or royal vills. Outside of these, even bishops, reeves or ealdormen were unable to systematically regulate the everyday actions of the populace (Ibid.). In the early tenth century, rather than a systematic administrative framework, the functions of government were most likely carried out at a local level, either at hundred or shire level gatherings, and laws and policies intended for regional ealdormen and thegns to carry out in line with royal decree (Molyneaux, 2015, 102-103 and 113). The 892 destruction of an unfinished *burh* in Asser's *Vita Ælfredi* serves a parable to the virtue of fulfilling such royal commands at a regional level, illustrating that such responsibilities were not under centralised royal control (Asser, §91, Keynes and Lapidge (ed.), 1983, 102). While the terminology of a 'Mercian state' is used throughout this work, therefore, it should not be read with the connotations of a modern bureaucratic nation state. Rather, it represents the governance of Æthelflæd and Ealdorman Æthelred, and the ealdormen and thegns responsible for carrying out their policies, laws, and administration at a local level.



## The Burghal Hidage as Documentary Evidence

Alongside the nature of the *burhs* themselves, the reliance of so much Anglo-Saxon military and urban history on the Burghal Hidage means that the form and function of the document itself are central to contextualising burghal sites and illustrating the administration behind them. Even when investigating burghal sites outside of Wessex and therefore, with some exceptions, omitted from the Burghal Hidage, the document is nonetheless important in establishing the nature of the burghal system in place at the end of Alfred's reign, and the administrative framework which underlay and supported the maintenance and expansion of *burhs* into the Midlands and the Danelaw. Maitland supposed that the Burghal Hidage may have been written under the auspices of Edward the Elder, a hypothesis given more weight by H.M. Chadwick who dated the document to the period between the death of Ealdorman Æthelred in 911 and his wife Æthelflæd in 919 (Maitland, 1897, 230; Chadwick, 1905, 206-207). Chadwick based this on the inclusion of the Mercian towns of Oxford and Buckingham in what was an ostensibly West Saxon document, since Edward succeeded to control of London and Oxfordshire on the death of Ealdorman Æthelred and decided that 'it is likely enough from its geographical position that Buckinghamshire went with them', yet the Hidage does not cover the other Southern Mercian sites that would surely have been included when Edward took control of the entirety of Mercia in 919 (*Anglo-Saxon Chronicle*, MS.A, s.a.911 & 919; Chadwick, 1905, 207). Maitland and Chadwick's dating of the Burghal Hidage has found widespread acceptance. Stenton made use of the Burghal Hidage in *Anglo-Saxon England* without challenging this dating, although he did suggest that the original document may have been drawn up under Alfred (Stenton, 1971, 292). In 1964, Nicholas Brooks also argued that the current version of the Burghal Hidage may have been a redrafting of a slightly earlier document, reworked to include new acquisitions; this would explain the inclusion of Oxford, Buckingham and, in an appendix, Warwick and Worcester and the omission any of the newer *burhs* built in, or after, 915 (Brooks, 1964, 81).

The greatest dissent from Maitland and Chadwick's dating of the Burghal Hidage comes from Jeremy Haslam who, building on Brook's idea of an earlier text and also somewhat that of C.A.R. Radford (1970) and Martin Biddle (1976), postulates a document compiled in 878-879 (Haslam, 2006, 240; Baker and Brookes, 2013, 33). Although the dating of the Burghal Hidage may seem only marginally relevant to the study of sites which lay outside of its coverage, the motives and methods behind Edward, Æthelred and Æthelflæd's programme of burghal construction in the first decades of the tenth century would require significant consideration when approached against the background of the implications of Haslam's revised date, especially given

Haslam's important ideas on the military functions of *burhs* which will be discussed below. Haslam's theory is predicated on the assumption that the Viking armies which had camped at Chippenham, Cirencester and Fulham in 879 were forced to withdraw into East Anglia in 880 and thus the logical reasoning behind this would have been the construction of the burghal network which impeded their mobility, threatened them militarily and prevented their raiding (*Anglo Saxon Chronicle*, MS.A, s.a. 880; Haslam, 2006, 128-132). This hypothesis is supported with detailed calculations; an estimation of the defences of Cricklade would have taken eight months for a detail of a thousand men to complete, time adequately found in the eleven or twelve months with reasonable weather in the fifteen-month period following Alfred's victory at *Ethandun* (Haslam, 2006, 132). From this, Haslam draws the somewhat unlikely conclusion that it was feasible for Alfred to have constructed the entirety of the burghal network by 879 in order to force the Vikings away from Mercia and London, freeing him to expand his own influence over Mercia, fortifying Gloucester as a means of extending control, and even makes the strong assertion of Alfred's involvement in potentially assassinating Ceolwulf II (Haslam, 2011, 138).

The implications of this are potentially far reaching. The completion of the burghal network in Wessex by 879 would leave a gap of at least twenty years before the renewal of construction under Edward and Æthelflæd; many of these later *burhs* such as *Scergeat* or *Weardbyrig* appear to have not developed an urban function to leave them identifiable as towns today in a period where non-urban fortified sites would have been rendered long-obsolete by a period Haslam deems relatively free from the immediate threat of invasion by Viking forces (Haslam, 2006, 137). Furthermore, a period of such rapid, and apparently successful, construction after a period of such extensive conflict raises questions not only as to why the rate at which Edward and Æthelflæd were able to raise *burhs* slowed so dramatically to the rate of one or two a year during a period when West Saxon power was supposedly markedly waxing, but also as to why there was then such a lack of expansion under Alfred during the 880s and 890s if the kingdom had been rendered secure by the burghal network. To assume Alfred had secured full control over Mercia by the 880s also confuses the political relationship between Alfred and Ealdorman Æthelred, and later between Edward and Æthelflæd, especially due to Æthelflæd's apparent political independence from her brother.

There are several issues with Haslam's revision of the dating of the Burghal Hidage which, while perhaps not rendering it impossible, certainly make it unlikely. A particularly detailed rebuttal comes from John Baker and Stuart Brookes, who argue that, while Haslam's analysis of the manpower requirements for burghal construction

are technically accurate, they critically overlook the myriad of other necessary resources and drains on royal resources, especially the 'concomitant logistical organisation needed to equip, feed and house the workers and to furnish the necessary building resources' (Baker and Brookes, 2011, 116-117). The construction of a single *burh* was clearly a resource-intensive project, and the necessary resources and co-ordination of men, materiel, and construction supplies to raise thirty-one in a single fifteen-month period would have been staggering. With Viking armies poised at Cirencester and Fulham and Wessex presumably still recovering from the attempted invasion before Alfred's victory at *Ethandun*, there must have already been a full mobilization of the *fyrð* in place, and this would have been nigh impossible to sustain when combined with a construction levy and the significant manpower necessary to maintain agriculture and gather the harvest, the 'foundation of Anglo-Saxon life' without which defence would have been moot (ibid.; Hill, 2011, 10). It is also noteworthy that neither the *Anglo-Saxon Chronicle* nor Asser, whose *Vita Ælfredi* is practically hagiographic in style, make any mention of what would have been a phenomenal achievement and statement of Alfred's ability and authority in his ability to marshal such resources and construct such a network of fortification in such a short space of time (Baker and Brookes, 2011, 118).

The *Anglo-Saxon Chronicle* and the *Mercian Register* both record with great importance the individual *burhs* raised by Edward and Æthelflæd, in many cases forming the sole entry for that year. What is clear is that these are important projects on a national scale, requiring royal supervision and military protection until complete; both the *Chronicle* and Asser's *Vita Ælfredi* record the disasters which could befall a *burh* which was not properly defended or a thegn who did not diligently adhere to his *burh-geweorc*, his obligations to construct and maintain defences (Baker, 2013, 72). Asser scorns those thegns and ealdormen who had 'opposed the royal command' and as a result were helpless when 'the enemy burst in by land and sea' and 'were reduced to virtual extinction... pitifully driven to despair, having lost their fathers, spouses, children, servants, slaves, handmaidens, the fruits of their labours and all their possessions' (Asser, §91, Keynes and Lapidge (ed.), 1983, 102). The *Anglo-Saxon Chronicle* rather more succinctly records how in 892, the Viking army came to the Lympe, 'rowed their ships up the river as far as the Weald... and there they stormed a fortress in the fen; inside were a few peasants, and it was only half made' (*Anglo-Saxon Chronicle*, MS.A, s.a. 892, Whitelock (ed.), 1962, 54).

Baker and Brookes argued that burghal construction would not have been seen as irrelevant in the 890s and 900s because even after *Ethandun* the threat of Viking invasion would have still seemed very real, and 'it should not be a surprise, or indeed a

major criticism, to suggest that West Saxon military planners were guilty of preparing to fight the last war rather than the next one' (Baker and Brookes, 2011, 116). Rather than be 'strategically out of date' however, the sort of attacks documented above by Asser and in the *Anglo-Saxon Chronicle*, and the campaigning of the Viking "Great Army" in France surely demonstrate that the burghal network was, if anything, ever more relevant and necessary in the 880s and 890s. In 883, the English were encamped against the enemy army at London, in 885 the Vikings laid siege to Rochester and in 892, the armies returned from France to raid the Weald and landed in Milton and Appledore in Kent (*Anglo-Saxon Chronicle*, MS.A, s.a. 883, 885, 892, Whitelock (ed.), 1962, 50-54).

A year later, as Alfred campaigned against the army which had landed in Kent, the Danes of the Danelaw 'collected some hundred ships and went south around the coast', laying siege to Exeter and a fortress – presumably Pilton, now Barnstaple – on the north coast of Devon, forcing Alfred to march West, while two more Viking armies assembled in Essex (*ibid.*, s.a. 893, 54). That this threat was counteracted by Ealdormen Æthelred, Æthelhelm and Æthelnoth and 'the king's thegns who were then at home at the fortresses' is indicative that in the last decade of Alfred's reign, the burghal network remained a critical component of Anglo-Saxon civil defence and was by no means obsolete (*ibid.*). Even those sites with a purely military purpose, the most extensive burden on the resources of the state, are unlikely to have been viewed as unnecessary given the continued frequency and seriousness of attacks upon Wessex until the end of Alfred's reign (Brooks, 1996, 145).

If the Burghal Hidage had been compiled in 879 and was thus responsible for the diminishing of Viking attacks in the mid- to late-880s, then by the 890s something had clearly gone awry. With Maitland's traditional dating of the hidage, however, the context of the 890s makes far more sense; the Burghal Hidage remained an integral part of national defence and an ongoing project until the end of Alfred's reign, upon which Edward, Æthelred and Æthelflæd merely took over the continuing administration and construction rather than beginning a new scheme of burghal construction *de novo*. As Baker and Brookes argue, 'the impression [of a single phase of centralised fort construction] is probably illusory, the comfortable unity of the Burghal Hidage belying a much longer and more complex history of fortification in response to changing external threats and changing frontiers' (Baker and Brookes, 2011, 109). The hidage document can thus be seen as a part of the continued reordering and flexible use of the assessment systems of Edward's government, brought about to establish the state of the defences of Wessex after his assumption of Edward's lands around London.

## Burhs and the Administration of Defence

Alexander Rumble and David Hill both argue for the Burghal Hidage existing as a complete document within a wider administrative framework. The omission of sites within Kent, which had been in West Saxon hands since 825, is not a sign that the document is in some way incomplete, since, according to Hill, it follows boundary clause conventions found elsewhere in Anglo-Saxon charters, delineating territories around Wessex in a clockwise manner and returning to the point of origin (Hill, 1996, 79). Rather, Kent was assessed territorially in *sulungs* rather than hides and so, along with London, may have been administered separately; Rumble notes that Sussex appears to have its own subsection of the Burghal Hidage marked by '*þonne*' in the text which could indicate continuity in 'administrative individuality', a state of affairs which would be even more likely in Kent given its long record of nominally independent rule under both Mercian and West Saxon overlordship (Rumble, 1996b, 70).

The inclusion of Worcester and Warwick, Mercian *burhs* fortified by Æthelflæd, suggests that some variation on the Burghal Hidage was in use in Mercia at the same time their location in an appendix may show that they were included for comparative purposes, or to illustrate to provincial West Saxon magnates labouring under extensive bureaucracy and high taxation that their Mercian contemporaries were following a similar system (Haslam, 2006, 140). Certainly the level of sophistication in the document suggests this could have been the case; James Campbell called the Burghal Hidage 'a feat of government on the largest scale' while Rumble suggests that beyond the Burghal Hidage there must have been myriad subsidiary texts which identified the subsidiary estates which were responsible for the upkeep of individual *burhs* (Campbell, 1975, 39; Rumble, 1996b, 70).

Asser gives some indication of the extent of bureaucratic and administrative reform which underlay the new plan of civil defence. In the *Vita Ælfredi*, Alfred castigates those ealdormen, reeves and thegns who have 'enjoyed the office and status of wise men, yet... have neglected the study and application of wisdom', after which these officials 'applied themselves in an amazing way' to their literacy (Asser, §106, Keynes and Lapidge (ed.), 1983, 109-110). Both Asser's *Vita* and the Burghal Hidage are normative texts, and as such portray a level of aspiration for the sophistication and complexity of Alfred's government that may never have truly existed in reality – indeed, the Burghal Hidage may have survived because of its uniqueness – but they are indicative of at least an attempt at organised bureaucratic control of defence. Clearly it was intended that local elites oversee defence administration on a provincial level and

that this elite should be sufficiently educated to be capable of their own administration independent of central royal authority.

Although none are known to be extant, it is not stretching the bounds of credibility to suggest that counterparts to the Burghal Hidage for Mercia and Edward's territory outside of the West Saxon heartlands, as well as variants for provincial administration, must have existed. Just as archaeological or numismatic investigations are limited by the 'accidental nature of archaeological survival', so is our interpretation of textual evidence limited by those documents which have somehow survived or been deemed worthy of preservation since their creation; as Campbell argues, we know that Offa of Mercia issued a law code only because Alfred mentions having used it' (Clegg Hyer, 2011, 3; Campbell, 1980, 175). The *Mercian Register* is argued to have been initiated by Æthelflæd as a counterpart to the largely West Saxon *Anglo-Saxon Chronicle* to bring Mercia into a parity of literacy with her brother's kingdom, and it must be assumed that she would have copied other forms of documentation (Carver, 2010b, 1-6; Whitelock, 1961, xi-xiv). Indeed, Haslam concedes that 'none of these fortresses [built by Æthelred and Æthelflæd] could have been conceived, let alone built, without having had a hidage assessment to enable the available human resources to be allocated to its construction and manning' (Haslam, 2006, 140).

Brooks and Carver both use a 'colloquium' at London in 893 as evidence of close collaboration between Alfred and his daughter and son-in-law in the construction of *burhs* (Brooks, 1996, 143; Carver, 2010b, 2). The meeting was attended by Alfred, Æthelred, Æthelflæd, Archbishop Plegmund and Bishop Wærferth of Worcester, and is thought to precede the laying down of a new street grid at London stretching north from Thames Street to Cheapside (S 1628; Vince and Schofield, 1994, 112). This 'town planning conference' is also argued by Carver to predicate the construction of the *burh* at Worcester planned by Æthelred, Æthelflæd and Wærferth 'for the protection of all the folk' typically dated to 884x901 (S 223; Carver, 2011, 2). If the fortification of Worcester can be dated to after the meeting with Alfred in London, and indeed it makes sense that this would be the case, then it follows that the Mercian fortifications were planned to some degree with their West Saxon predecessors in mind. If we approach the *burhs* of Edward and Æthelflæd outside of Wessex against this background then instead of a 'disparate and non-contemporary series whose individual elements were created to implement a quite different set of political, economic and military strategies' with no underlying strategic system, we can begin to examine these sites as part of a systematically planned and administrated network of defence (Haslam, 2006, 140)

It may in fact be in Mercia that the burghal system survived the longest following the general degradation of English military organisation and defensive capabilities during the reign of Æthelred II and subsequent decades of the early-mid eleventh century. Abels remarks on the importance that Cheshire is the only shire listed in *Domesday* as still mandating continued fortification work at the time of the Conquest (Abels, 2001, 29). In Wessex, by contrast, William's army carried out repair work at Hastings to provide themselves with a secure foothold, the old Anglo-Saxon defences there having fallen into disrepair (Ibid.). That the Alfredian, and later Edwardian and Æthelflædan, burghal networks were a victim of their own success, and could not justify their significant upkeep and manpower expenses in the peacetime that they created by the later tenth century, may be a significant factor in the disappearance of, or lack of settlement at, many of the Mercian burghal sites. In Cheshire, however, the importance of the city of Chester and the fluctuating political situation in Wales may have made the continuation of the defensive network a necessity even into the mid-eleventh century (Abels, 2001, 29-30). That the defences within the county were still part of an organised network by 1066 also suggests that the original network established by Æthelflæd, of which they were part, had been designed with long-term functionality in mind, and was not intended as a 'quick fix' solution to Mercian border integrity.

### *Burhs: Form, Function and Location*

The main avenue of exploration into burghal sites has long been the form and function of individual *burhs*, often with the aim of attempting to find a cosmetic similarity which could be used to indicate that these sites shared a conceptual heritage. In the same vein, the relative differences between West Saxon *burhs* and those later constructed by Edward and Æthelflæd are used to argue that these later constructions were built and planned *ad hoc*, and were not part of a unified system (ibid.). As discussed above, a lack of consensus regarding what precisely what qualified a site to become a *burh* has led to questions on what the precise form and function of a 'typical' *burh* is, if such a construction can be ever said to have existed. In 1970, H.L. Turner argued that, although defences were almost certainly built to answer a specific strategic need, it is unlikely that the settlements to which they were added were deliberately created, and a 'sufficiently comprehensive' network of defences could be provided by fortifying existing centres (Turner, 1970, 17).

When applied to the Burghal Hidage, Turner's argument is clearly flawed; for every *burh* situated at a pre-existent settlement such as Exeter, Bath or Southampton, there was one built *de novo* or which would not achieve urban status until much later. Neil Christie notes that the *burh* at Wallingford was built from scratch and was clearly sited

on strategic grounds, being preferred over the pre-existing town at Dorchester which would have left a gap in the burghal network (Christie, Creighton, Edgeworth and Hamerow, 2013, 69). A similar lack of previous post-Roman settlement was noted by Carver following excavations at Stafford (Carver, 2010b, 61-65). The *burhs* of the Burghal Hidage are never more than forty miles apart and often much closer along the south coast, giving rise to the idea popularised by Frank Stenton and often repeated that a West Saxon was never more than twenty miles, or a day's travel, from the shelter of a *burh* and its garrison (Stenton, 1971, 264; Wormald, 1991, 152-153; Abels, 1998, 204). This has since been used to assess *burhs* on the criteria of semi-militarised defensive refuges which assumed an urban function, rather as military sites in their own right.

Investigations are further hampered by the often random nature of archaeological survival and the necessarily piecemeal ways by which many sites have been investigated. John Schofield and David Palliser lamented in 1981 that 'the destruction wrought in our historic cities in 36 years of continuous peace has been far greater than anything achieved by enemy action in World War II' and the rush of 'rescue' archaeology in the face of urban redevelopment in the 1970s was often insufficient to uncover the entirety of sites, especially those where continuous urban history has obscured elements such as medieval defensive circuits (Schofield and Palliser, 1981, iii; Carver, 2010b, 4). The extent of the threat to archaeological remains was highlighted by Carolyn Heighway, who in 1972 identified fifty urban sites within England alone which had already lost, or were at severe risk of losing, their medieval archaeology during redevelopment, with Martin Biddle warning that 'the physical evidence for the history of the British people is being destroyed on an immense scale, at an increasing pace, and often without record' (Heighway, 1972, p35 and vi).

As a result, archaeological investigations have tended to focus on those sites where elements of the medieval circuit are still extant. For those sites listed in the Burghal Hidage, the 'calculation' has enabled archaeologists to estimate the rough length of defensive circuits where little hard evidence remains, such as at Bath, but for sites elsewhere, particularly *Æthelflædan burhs*, the lack of documentary evidence beyond that in the *Mercian Register* has led to a reliance on estimation based Burghal Hidage values and a focus on those few sites where clear evidence of fortification is still extant: Worcester, Tamworth, Hereford and Winchcombe (Brooks, 1996, 129-133; Bassett, 2008, 182; 2009; 2011, 7-14). That this is the case, reflects Steven Bassett, 'may reflect a paucity of appropriate excavations rather than a scarcity of Mercian fortified places of the middle Anglo-Saxon period', however in many cases the location of the



original *burh* remains approximate at best (Bassett, 2008, 182; 2009, 123-124; 2011, 14-16).

That the development of *burhs* at pre-existing urban centres such as Winchester or London involved the redesigning and construction of new settlement lay-outs and roadways should not be taken to mean that the development of planned settlement layouts at other *burhs* indicates that these sites were conceived from the beginning as potential towns (Biddle, 1976, 124-134; Biddle and Keene, 1976, 449-469; Vince and Schofield, 1994, 110-114). In many cases it was not until the late tenth, or even early eleventh century that new *burhs* developed an urban function, a long-overlooked fact which Andrew Reynolds argues requires a 'recasting' of the long-established, seamless 'wics-to-*burhs*' model of English urbanism, which was largely unchallenged since the mid-1970s (Reynolds, 2013, 21). For sites such as Wallingford, where the burghal plan reveals large, undeveloped areas which presumably acted as staging grounds for the *fyrð*, it has been recently argued that the settlement had a primarily military focus with the layout and size dictated by a planned or perceived role at shire level, Wallingford serving as a 'bridgehead' with space specifically set aside for the storage of materiel, food and animals, and the mustering of soldiery (Christie, Creighton and Edgeworth, 2013, 122). Martin Carver's recent work on the Æthelflædan *burh* at Stafford similarly argues for a primarily military conception; the presence of organised granary and pottery districts and smithing but the lack of evidence for more artisanal industry leading Carver to conclude that the *burh* was envisioned as a military supply depot rather than a new town (Carver, 2010b, 67-73 and 92).

As discussed below, Carver's work at Stafford opens new and interesting lines of inquiry about the organisation of the Æthelflædan *burhs*, in particular identifying and examining networks for the supply and redistribution of goods and materiel throughout Mercia. At Stafford, there is no evidence of town development until the twelfth century, at least a century after the *burh*'s military infrastructure was severely damaged or destroyed in a fire (Carver, 2010b, 27). At other Burghal Hidage sites, development from *burh* to town was instigated by the changing political realities of the tenth century. The garrisoning and maintenance of a *burh* without the presence of a town was a constant draw on manpower and resources and, as Edward and Æthelflæd expanded their borders into the Danelaw, so the Viking threat to towns in Wessex dissipated and opportunities arose for wider economic development (Brooks, 1996, 144; Christie, Creighton and Edgeworth, 2013, 122;). The 'riverine' setting which had characterised many *burhs*, to bar waterways to raiders and control bridges and fords, lent itself readily to economic expansion, as did the situation of those *burhs* at the junctions of Roman roads and *herepaths* (Pelteret, 2009, 36; Brookes, 2013, 49).

It is argued by David Hill that it was during this period that many of the smaller, purely military West Saxon *burhs* were abandoned in favour of new town developments nearby (Hill, 2000, 173). Æthelstan in particular oversaw considerable reorganisation and reform, such as that evinced in the Grately code, which sought to establish town *burhs* as economic centres and so smaller defensive *burhs* such as Pilton were abandoned in favour of defended towns such as Barnstaple, Totnes and Guildford (ibid.). It will be a matter of interest when investigating those *burhs* which lay outside of Wessex to see how their development was affected by the changing frontier, and whether a similar process of abandonment or economic development was considered or came to pass. One facet of this will be examining the sites which were chosen for development as *burhs* by Edward and Æthelflæd.

The sites beyond Wessex chosen for fortification by Edward and Æthelflæd do differ from those developed by Alfred and Edward and named in the Burghal Hidage. Unlike the defences raised in the latter decades of the ninth century, those *burhs* raised in the first decades of tenth were a product of a change in the military and political balance which saw Alfred's children expanding their kingdoms into the Danelaw. In the east, Edward operated in former Danish territory, and so often refortified older Danish defences, while the Mercian expansion under Æthelflæd co-opted both old Mercian centres and re-established Roman ones (Carver, 2010b, 3; Bassett, 2011, 16).

Bassett's 2008 work catalogued the tenth century defences of four Mercian sites, Hereford, Worcester, Winchcombe and Tamworth, bemoaning the lack of any substantial archaeological investigation of the defences of any other major Mercian settlements or *burhs*. Of the four sites covered by Bassett, only Tamworth is a *burh*, and for all sites there is little concrete evidence to conclusively date the defensive circuits to Æthelflæd's reign, despite a relatively good level of survival (Bassett, 2008, 180-181). At Tamworth, Hereford and Winchcombe, two stages of fortification can be found, with stone revetments being added to an earlier earth and timber series of ramparts. Both series are Anglo-Saxon, and it is thought that the later series represents reinforcement of the earlier late-ninth or early-tenth century defences as Danish attacks on England resumed during the reign of Æthelred II (Ibid.; Bassett, 2011, 7-14).

At Worcester, however, scantier evidence of defensive fortification appears to indicate that the town's Romano-British defences were restored during the Anglo-Saxon period rather than new defensive circuits constructed. Although there are some discrepancies between the defences at Tamworth, of particular significance to this study, and Hereford and Winchcombe, due largely to geography, topography and site significance, there is a remarkable similarity to the defences of all three towns, both to each other as

well as to the defences of earlier *Burghal Hidage* sites in Wessex (Bassett, 2008, 230-231; 2011, 14-17).

All three Mercian sites surveyed by Bassett are noticeable for their use of a rectilinear defensive circuit with an internal grid pattern of roads, forming a roughly rectangular settlement with a religious building at the centre of the town. At Tamworth and Hereford, the rivers Tame and Wye respectively comprise the fourth side of the defensive circuit, with the other sides made up of ramparts with outer ditches (see below). At Tamworth, the only Mercian *burh* surveyed, St. Editha's Church is central to the medieval street grid, itself lying within a palace enclosure potentially dating to the reign of Offa, with the River Tame forming the southern boundary of the defences and a likely tenth century ditch and rampart expanding on an earlier middle Anglo-Saxon defensive circuit to the west, north and east, with a gate in all three sides (Stenton, 1933, 315; Rahtz and Meeson, 1992, 1-2). Immediate comparison can be drawn between this settlement plan and the type seen at West Saxon *Burghal Hidage* sites such as Wallingford or London. It is likely that investigation into Æthelflæd's other fortified sites will reveal similar variations on a basic template, likely one planned at the 893 London 'colloquium' at which Alfred, Æthelflæd and Æthelred planned the new London *burh*, and from which Bishop Wærferth of Worcester would have likely also have requested the fortification of his See (Carver, 2010b, 2). If Æthelflæd's *burhs* were indeed constructed as part of a network rather than individually, it would also be reasonable to expect to find similarities in the construction of their respective defences with the ditch and revetted rampart pattern of the defensive circuit at Tamworth (*Fig. 2*, below).

As Bassett states when investigating Tamworth, there has been little examination of the defences of those Æthelflædan *burhs* built *de novo*, such as Stafford or Chirbury, and these will be of interest to this study. Stafford, for example, had seen a Roman presence until the fifth century, but was subsequently abandoned until the 'sudden, planned and ubiquitous' late Anglo-Saxon redevelopment from 913 onwards (Carver, 2010b, 56).

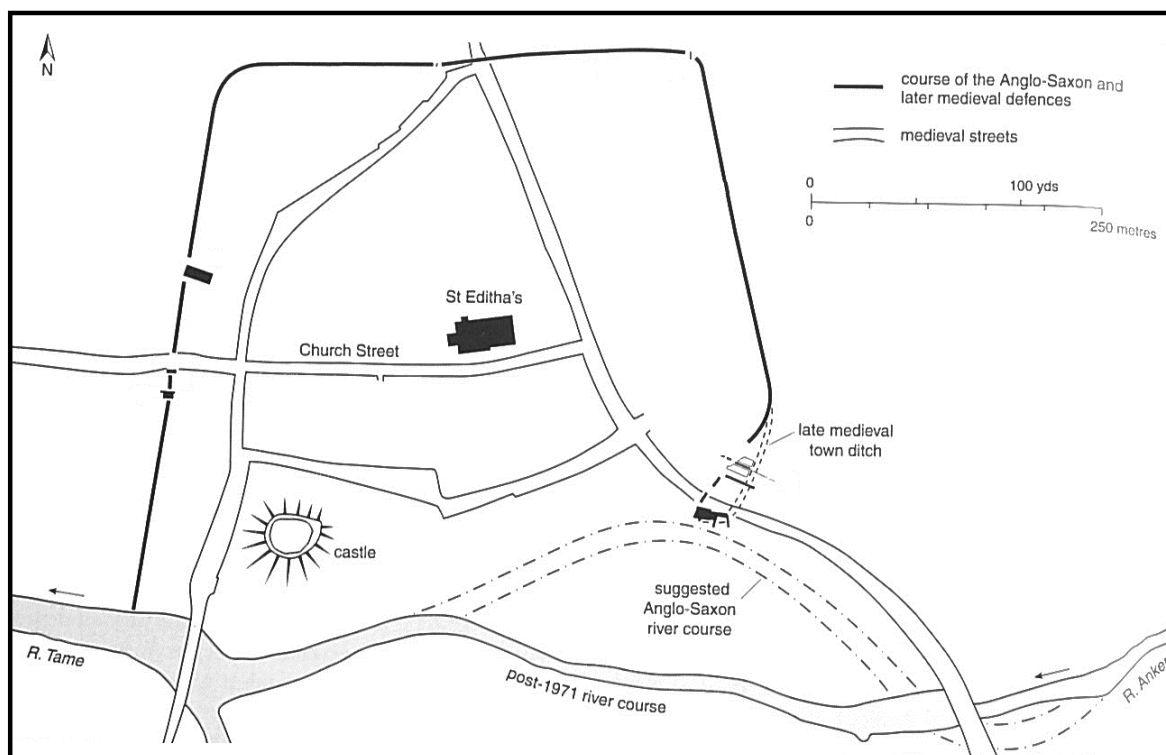


Figure 1: Plan of Tamworth's defensive circuit, from Bassett, 2008, 192

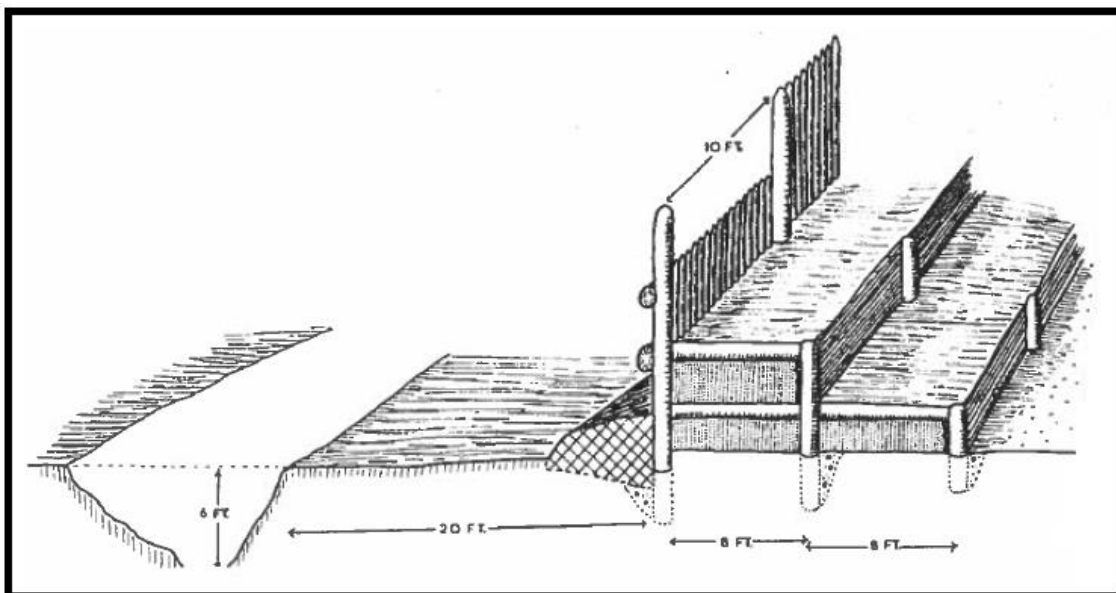


Figure 2: Idealised Reconstruction of Tamworth ditch and rampart defences at Brewery Lane, from Gould, 1968, 22 and Bassett, 2008, 1

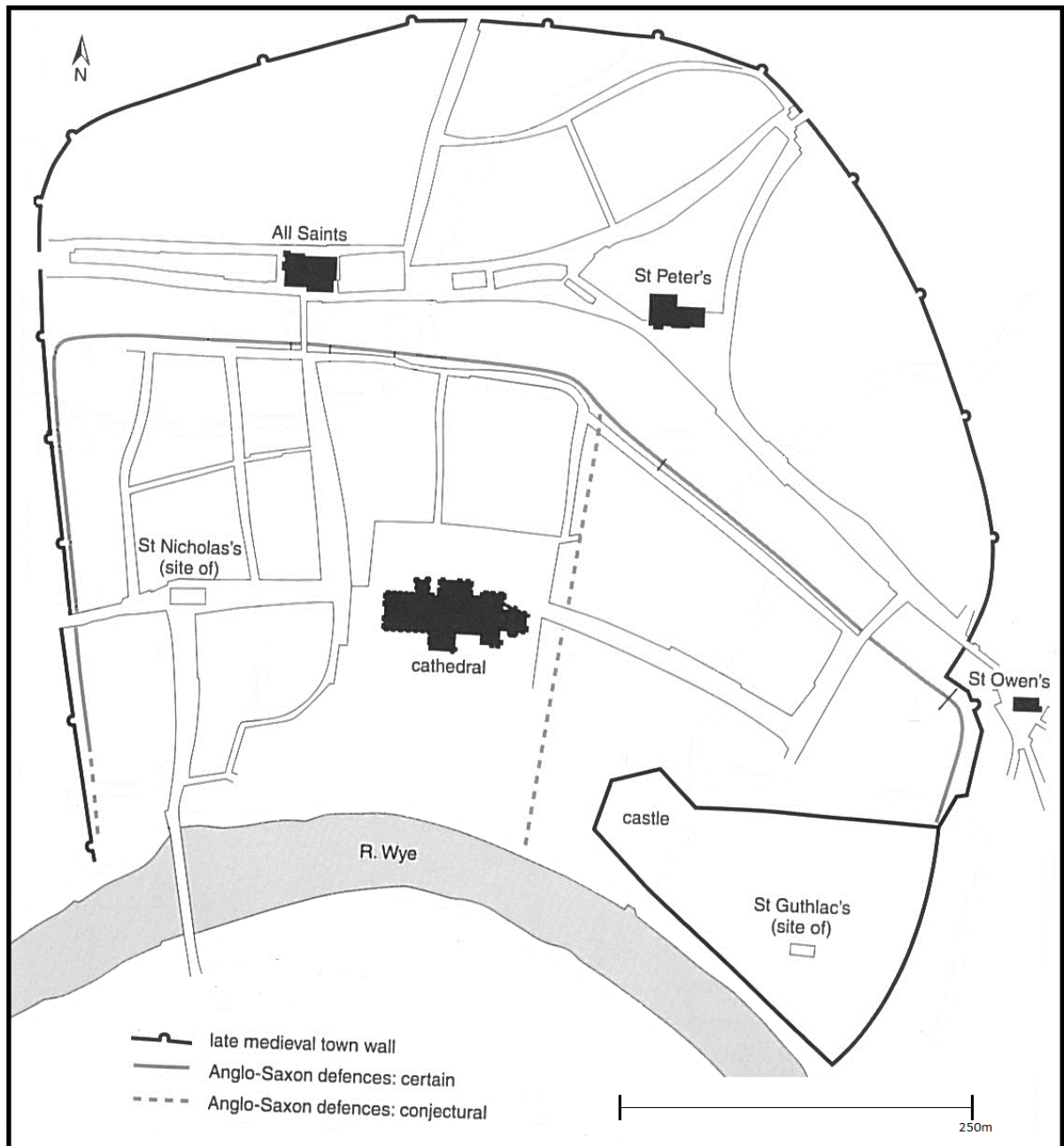


Figure 3: Defensive Circuits at Hereford, from Bassett, 2008, 183. The larger, 'certain' Anglo-Saxon circuit is deemed to be Æthelflædan in construction.

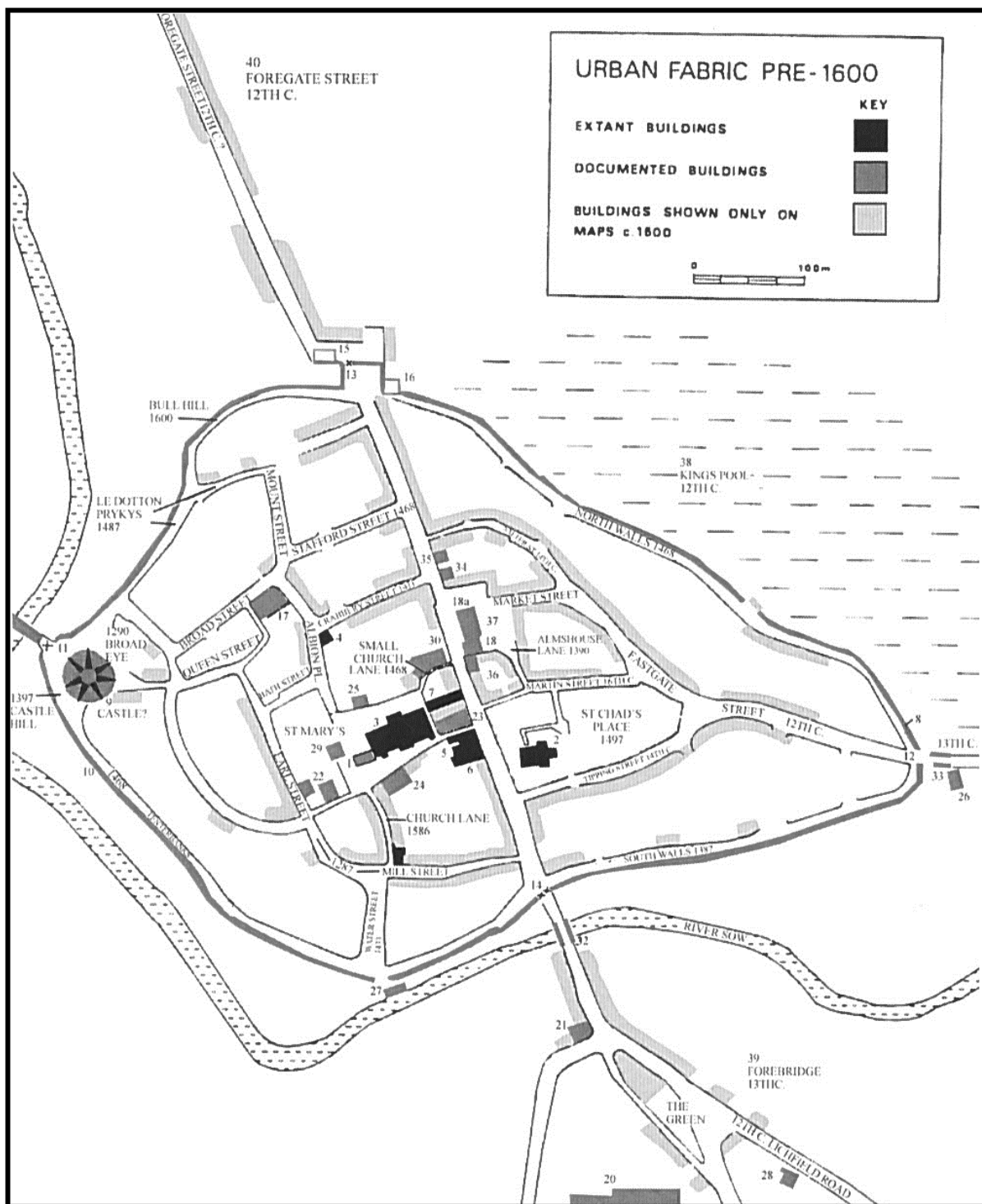


Figure 4: The Medieval defensive circuit at Stafford, from Carver, 2010b

Carver's work at Stafford attempted to trace the Anglo-Saxon defensive circuit, but could find little definitive proof of a tenth-century series of defences outside of a small central area around the site of St Bertelin's, now St Mary's Church in the city centre (ibid.), but hypothesised a potential outer circuit close to the later medieval one. Of the majority of *Æthelflædan burhs*, however, little investigation has been done, whether this is because the sites are isolated and rural by modern population distribution, or

simply due to a lack of interest or possibility of excavation. For those *burhs* which are not now urban sites, such as Eddisbury or Chirbury, or for those which have not been extensively excavated such as Bridgnorth, a reinterpretation of the Mercian network opens up the possibility of further study of these sites.

### Civil Functions: *Burhs* as Economic, Symbolic and Religious Sites

If burghal sites were not necessarily envisioned as towns, they were nonetheless designed to fulfil a variety of roles beyond the purely military. Brooks has long argued that as royal centres, the *burhs* served as focal points for the control and administration of the economy and law and order, a 'financial carve-up between the king and the interested great lords' (Brooks, 1996, 143). Laws such as those in *II Æthelstan* Clause 14 illustrate the extent to which *burhs* were intended to bring the trade of valuable commodities such as livestock under the auspices of royal oversight; earlier laws of Edward the Elder had even attempted to restrict all trade to *burhs* before this was repealed by Æthelstan, presumably on the grounds of practicality (Williams, 2013, 140-141). *II Æthelstan* also evinces another economic function of the *burh*: minting. Alfred's construction of the burghal network had been coupled with an expansion of minting outside of the traditional centres of the South-East – London, Rochester and Canterbury – and by the accession of Æthelstan to the throne in 924, there were at least thirty-five mints in operation throughout England (Blackburn, 1996, 160). Minting was not limited solely to those sites within the *Burghal Hidage*, and indeed seems to have been a key part of the expansion of English territory and the burghal network by both Æthelflæd and Edward, with five new mints established in West Mercia at Gloucester, Hereford, Shrewsbury, Stafford and Chester (ibid., 165).

An important component of this project will be an examination of the size and distribution of this coinage in order to understand the role minting played in the plans of the English leaders. Mark Blackburn argued in 1996 that most mint sites were chosen for their economic situation, close to either ports or mines in order to source silver bullion, and conceded that it was 'hard to explain' those mint sites which did not later become major towns and economic centres (ibid., 165). Gareth Williams addressed the small scale of many burghal issues and argued that it is unlikely that a widespread burghal coinage was ever envisioned, instead arguing that aside from a few major sites such as Chester, the proliferation of small mint issues under Edward and Æthelflæd were special issues, possibly in order to celebrate the completion of the *burh* in which they were minted (Williams, 2013, 137). Unique to this brief period are small issues of pictorial coins of Edward, which Stewart Lyon and Rory Naismith identify as having



been minted in his name in Mercia by Æthelflæd in 'a rare and limited numismatic recognition of political distinction' (Lyon, 2001, 72-73; Naismith, 2014, 39-41).

Part of this pictorial issue features an obverse architectural design, most likely of a stylised watchtower or gatehouse which Naismith argues indeed celebrates the capture or foundation of a *burh*, more likely by Æthelflæd than by Edward given the coins' provenance (EMC 2003.0162; Naismith, 2013, pers. comm. 9 July). Other Æthelflædan issues depict a descending *Manus Dei*, implied to be conferring a divine blessing on Edward's reign (EMC 1993.5001; Naismith, 2013, pers. comm. 9 July).



EMC 2003.0162



EMC 1993.5001



Figure 5: Pictorial coinage issued from Chester during the reign of Edward the Elder. Source: Sylloge of Coins of the British Isles Database, Early Medieval Coins Online ([www.fitzmuseum.cam.ac.uk/depts/coins/emc/](http://www.fitzmuseum.cam.ac.uk/depts/coins/emc/))



This introduction of new issues was a 'product of contemporary institutional and ideological developments' based on a century of development of sophisticated links between coinage and royal authority. Naismith remarks how the establishment of mints was a developmental priority in the *burhs* raised in the wake of the English armies with the presumption that the presence of a new mint would fulfil a combination of economic and especially administrative needs, especially in ensuring that coinage, a sign of the extension of royal power and authority, was distributed throughout newly conquered territory to speed the assimilation of the population (Naismith, 2014, 39-41).

The uses of Æthelflædan *burhs* as well as urban centres in cultural and territorial assimilation is another important area for discussion. Carver's interpretation of Edward's and Æthelflæd's actions as continuing their father's plan of using, or creating, sites which had 'at least some of the functions of military, economic and spiritual control' is nuanced by Richard Abels, who qualifies that 'whether Alfred conceived of the *burhs* he ordered built as islands of royal authority, there can be little doubt that Edward and Æthelflæd did' (Carver, 2010b, 3; Abels, 2013, 210). Indeed, Abels envisions *burhs* intended less as elements of a civil defence system than as 'anchors for the consolidation of conquest', which again raises questions as to whether these sites were constructed with an overriding system in mind (Abels, 2013, 210). Although Gareth Williams claims that there is nothing to suggest that Mercian *burhs* functioned in the same tight-knit system as those in the Burghal Hidage, Carver suggests that with further investigation, evidence of a clear network may come to light (Williams, 2013, 147; Carver, 2010b, 134-135). What is clear, however, is the extent to which the multi-faceted role of the new *burhs* applied itself to the consolidation of 'English' control over newly-captured territory. There was a clear symbolic quality to the siting, construction and maintenance of *burhs*; Christie notes that the newly-constructed *burh* at Wallingford was equivalent to the royal capital of Winchester in size, a fact which would have no doubt impressed and fostered great pride in any of the soldiery and nobility responsible for its construction and garrison, as well as serving as a powerful statement of Alfred's ability to control great resources (Christie, Creighton, Edgeworth and Hamerow, 2013, 69). At Stafford, Martin Carver explores the possibility that Æthelflæd consciously aped Roman tradition in her raising of the *burh* there, choosing a site known to have had a Roman presence and building in a rectilinear fashion inspired by Roman *caestre* design (Stafford, 2010, 92). Alfred had already made good use of the symbolic authority of the imperial Roman past; his and Ceolwulf II's joint *Two Emperors* coin issue in the late 870s was heavily based on the design of the Roman *solidi* which constituted the greatest proportion of imperial coins found in Britain

(Blackburn, 1998, 113). Re-occupation of Roman sites and re-use of designs would be an important signifier of the power and authority linked to the Roman legacy.

The importance of the Church to Anglo-Saxon states is well known, and the relationship between the state and the Church in regional administration is perhaps best described by John Blair as the royal administration achieving territorial stability by 'battening onto minsters' (Blair, 2005, 326). In Mercia in particular, the Church fulfilled a role which seems to have placed it at the centre of royal policy. Julia Barrow draws distinction between the West Saxon *burhs* of Alfred and Edward, and sites fortified by Æthelred and Æthelflæd, perhaps overlooking Winchester in arguing that the West Saxon monarchs seem to have disapproved of 'powerful churches' in their *burhs*, but stating that Æthelred and Æthelflæd encouraged 'a plurality of major churches' inside fortified urban sites (Barrow, 2000, 130). In a politically astute move, Æthelflæd actively fostered and patronised a wide range of Mercian saints' cults, and the dedication or re-dedication of sites seems to have formed an important facet of 'post-Viking revival' to a far greater extent than in the 'pre-Viking' period (Thacker, 1985, 18-25; Carver, 2010b, 136-137; Rollason, 1989, 186).

According to William of Malmesbury, Æthelred and Æthelflæd led a military expedition to Bardney in 909, seizing the relics of Saint Oswald from Viking hands, and translating them to the *burh* at Gloucester 'because all Mercia was under their power' (William of Malmesbury, *De Gestis Pontificum Anglorum*, Hamilton (ed.), 1870, 293). David Rollason calls this a 'clearly political act... linked explicitly with the power of Æthelred and Æthelflæd' (Rollason, 1989, 154). Barrow argues that this patronage of Mercian martyr cults and the construction of new churches were an important feature of Æthelflæd's policy to create a sense of identity for each town, although Thacker argues that, given Æthelflæd's West Saxon heritage, it is more likely that the promotion of these cults was designed to mollify potential Mercian resentment of 'foreign' rule and to legitimise her authority over the kingdom (Barrow, 2000, 130; Carver, 2010b, 136; Thacker, 1985, 19). So it was that 'ancient cults... achieved a new significance under new circumstances' and the plans for Hereford, Tamworth and Winchcombe suggested by Bassett and for Stafford by Carver all indicate that churches were central to the planned layout of the newly fortified settlements and *burhs* (Thacker, 1985, 18-25; Bassett, 2008, 183, 192 and 214; Carver, 6). The presence and purpose of churches in a burghal setting has previously provided a route of inquiry into Anglo-Saxon *burhs*, with Blair in particular examining the importance of minster churches in sites with *burh*-related toponyms (Blair, 2005).

Indeed, the consistency of settlement layout seen in the plans discussed above suggest a uniformity of design which may be indicative of pre-conceived organisational system behind Mercian fortified sites which placed the Church at the centre of the resurgent Mercian state both figuratively and literally. This does not necessarily mean that the Church was central to Æthelflæd's burghal network specifically, however. Important distinction must be drawn between fortified Mercian sites, and the specific *burhs* noted in the *Mercian Register*; while Tamworth, Chester and Stafford were significant settlements, it should be noted that they appear to be exceptions from a distinct Mercian burghal network based on largely military sites, as will be discussed below. While churches were central to major Mercian population centres such as Hereford and Gloucester, these sites were not *burhs*, and indeed appeared to be distinct from the burghal network (see below). At Stafford, Carver suggests that the Church of St Bertelin was originally either an open-air or potentially tented site, which developed as a permanent population consolidated around the productive functions of the site (Carver, 2010b, 136). At sites such as Bridgnorth or Eddisbury, discussed in Chapter 2, religious buildings are either absent or extramural, and while religious services are still likely to have occurred there for the rotating garrison populations, these would probably have taken place within the type of *ad hoc* sites postulated by Carver to have been originally at Stafford. The Mercian burghal network appears to have been constructed at strategically important locations designed to provide overlapping defence to ecclesiastically important sites such as Lichfield or Hanbury, rather than including those sites within it, or attempting to supersede them. While the Church was central to Æthelflæd's Mercian state, therefore, it should be seen as complimentary rather than intrinsic to the burghal network, as mutually assistive systems designed to extend royal power rather than necessarily linked ones. It is for this reason that an examination of religious sites will not form a significant part of this discussion.

### A Burghal Network?

The concept of *burhs* as a networked system is not a particularly new one; indeed, Stenton describes them as an 'ordered system of national defence' (Stenton, 1971, 336). Recent work, however, has challenged the way in which the burghal defences have traditionally been interpreted, in turn changing the way in which we must examine the means of Anglo-Saxon expansion and the role played by the state in warfare, and what this means for burghal sites. The concept of organised defences on a national scale is not a phenomenon new to the Anglo-Saxons of Alfred's reign, of course. As early as 792, Offa imposed charter terms obliging landowners to participate in *pontis constructionem et arcis munitionem contra paganos*, and Offa's Dyke still stands in

witness to the organisational and logistical capabilities of his kingdom (S 134; Abels, 2013, 199). By 858, Æthelberht, acting as *subregulus* of Kent, imposed the terms now known as the *Trimoda Necessitas*, ordering that those in receipt of land were to contribute to *expeditione sola et pontium structura et arcium munitionibus securo* (S 328). From this, Brooks has suggested that by the 850s, systems were in place in Wessex whereby every estate was liable to contribute to state defences (Brooks, 1996, 129). What is novel about the burghal system, therefore, is not the state-maintained nature of the defences, but rather the way in which they operated. Haslam's work, though contentious, raises important considerations about the situation and purposes of the burghal fortresses, namely that rather than passive fortifications designed to protect population centres, these were 'offensive' fortifications at strategic locations chosen to control mobility along the frontier, such as major road junctions or river crossings, and allow armies to be present on that border with mutually supportive garrisons (Haslam, 2006, 130-131). It is this approach which has eventually informed much of the most recent work on *burhs*, and the attempts to discern the systems and networks which connected them, leading to what Stuart Brookes has called 'the need for new, wider studies, looking at all of these major sites as a *group*, set in their full strategic, economic, social, political, and topographical context' (Brookes, 2013, 43).

Baker and Brookes' 2011 paper builds on the 1997 work of Richard Abels in positing the role of burghal sites as garrisons to facilitate the rapid deployment of reinforcements to field armies in a counter-offensive rather than passively defensive role (Abels, 1997, p257-265). Baker and Brookes continue that, while nobody in Wessex was more than a day's walk from a *burh*, their usefulness as refuges was severely compromised by the logistical difficulties posed by gathering families, livestock and possessions for a twenty mile flight while under imminent attack, as well as the inability of static fortifications to protect the crops and agricultural supplied central to the Anglo-Saxon economy and war effort (Baker and Brookes, 2011, 109). The possibilities of signalling networks and communication systems between burghal sites has been mooted, and this will be discussed in depth in Chapter 3 (Hill and Sharp, 1997; Baker and Brookes, 2014). David Hill and M.M. Postan have both argued that the importance of agriculture cannot be too highly stressed, and thus should not be overlooked when considering defensive priorities (Hill, 2011, 10; Postan, 1973, 41). Rather than as convenient refuges, therefore, Brookes and Baker argue that *burhs* should be seen rather as staging posts from whence, importantly, a garrison was never more than a day's march from potential raiding and invasion (Baker and Brookes, 2011, 109).

This role also sees *burhs* functioning as fortified supply depots which provided a secure base from which local garrisons could operate, placing supplies out the range of Viking raids and curtailing their ability to lay siege to areas or bypass fortifications, while simultaneously providing a secure location from which royal armies could rearm and resupply (Williams, 2013, 132). This vision of a 'defence in depth' rewrites the way in which Anglo-Saxon defensive warfare can be seen to operate, moving away from the small armies of elites postulated by Richard Underwood towards a series of mutually supportive garrisons and armies implying a high level of militarisation throughout the Anglo-Saxon kingdoms (Underwood, 1999, 115; Baker, 2013, 75-76). A similar system of defence in depth has been identified by David S. Bachrach in the frontier policies of the Ottonian kings Henry I and Otto I in the mid- to late-tenth century whereby Slavic fortifications, usually within a day's march of the frontier city of Magdeburg, were rebuilt and repurposed for Ottonian forces (Bachrach, 2012, 24). In Bachrach's maximalist interpretation, a series of *Fluchtburgen* sheltered a fleeing population and their goods and livestock while military fortifications co-operated to control roads, bridges and other choke-points and marshal local defence forces against Slavic raiders, and obvious comparisons can be drawn with a burghal network used as the foci of regional defence networks.

Although they disagree with the Roman 'Grand Strategy' of frontier defence hypothesised by Edward Luttwak, Baker and Brookes nonetheless envision a deep network of civil defence based on the landscape, with burghal garrisons connected to a series of local strongholds by networks of scouts, watchtowers and signal beacons securing lines of communication and supply, denying enemy mobility and functioning as the hubs of a new 'coherent policy of territorial defence' (Luttwak, 1979; Brookes, 2013, 45-50 and 58; Baker and Brookes, 2013, 118). This re-imagining of the burghal network based on mobile warfare offers a variety of interesting implications, in particular the means by which the purposes of a *burh* can be evaluated. Norman Yoffee's work on 'archaic states' argued that 'areas of power are mutually reinforcing: change in one requires reciprocal development in another; evolution in political power, including the imposition of force through military organisation, requires the co-evolution of other spheres for states to emerge, particularly in agricultural production' and this informs the basis of Baker and Brookes' approach (Yoffee, 2005, 38). Indeed, their approach advocates abandoning the traditional 'structural Marxist perspectives' in which 'economic articulation is seen as the main dynamic of early medieval state development' and warfare as 'epiphenomenal' in favour of investigating the impact of warfare and military sites upon the landscape and wider states (Baker and Brookes, 2013, 3).

These new ideas of landscape-based systems offer new opportunities to investigate the post-Alfredian *burhs* of the Midlands and the ideas and strategies behind them. This study will seek to answer Brookes' call to move the emphasis of investigation 'away from the study of individual sites to explore the relationships between them, and how these together defined particularly military spaces tied to various defensive, political and socio-economic concerns' (Brookes, 2013, 42). The Burghal Hidage and its associated studies provide a suitable 'jumping off point' for this study; new approaches have been applied to sites in Wessex leaving Æthelflædan sites in particular with a lack of investigation. Brookes' identification of military roadways and signalling networks in Wessex open the potential of finding similar networks between the Mercian *burhs* of the tenth century, and to explore Æthelflæd's expansion and state-building from a military perspective (Brookes, 2013, 48-49). It is hoped that through investigation of the landscape, numismatics and material culture and systems analysis, evidence beyond mere topographical similarity will emerge to identify the tenth-century *burhs* as not just ad hoc strategic sites but rather planned elements of a long-term military and political strategy and thus to re-evaluate the purposes both military and royal behind their construction and roles.

Landscape archaeology may provide a valuable insight into the developing function and design of burghal sites in Mercia, and provide context to differences which appear between the West Saxon and Mercian series. Of particular importance is the relatively sparse population of Mercia and the dispersed nature settlement within the region. The population figures of Mercia cannot be easily quantified, especially given the unknown political nature of the region during the last quarter of the ninth century, and the potential for disruption and influences on the population, whether from the internal displacement of people fleeing west from conflict, internal migration or even potential Scandinavian settlement (Hadley, 1997, 87-88; 2000, 107; Lund, 1981, 167). What can be better hypothesised, however, is the pattern by which this population was distributed, and the issues this caused the Mercian state in the establishment of Æthelflæd's burghal network. Of particular importance was the poor agricultural quality of land in much of the Midlands, particularly in the Danelaw borderlands of Staffordshire and north-eastern Cheshire, as well as in north-western Shropshire (Hooke, 2001, 165-167). Large swathes of these territories were comprised of fen, forest and moorland, as well as the foothills of the Peak District, the Maer Hills and the Clun Valley, with productive and agriculturally viable land distributed in small pockets when compared to the majority of Wessex or southern Mercia (Ibid.; Hooke, 1998, 19-32; Williams, 2013, 155; Brooks, 1996, 136-141; Higham, 2014, 133).

Much of this border region was therefore lightly settled. Although toponymic evidence and *Domesday* suggest that settlements were not necessarily fewer and farther between than those in Wessex or southern Mercia, their landscape was much more marginal, and as a result individual settlements tended to be significantly smaller, sometimes sustaining only a single household (Hooke, 1988, 115-136; 1998; 2001, 167-169; Rowley, 1972, 137). Indeed, the visualisation of *Domesday* entries provided by the Open Domesday Project illustrates that although there are regular settlements throughout northern Mercia, in 1086 these remain routinely much smaller than those found further south in Worcestershire and Gloucestershire, or in Wessex or East Anglia (University of Hull Open Domesday Project, [opendomesday.org](http://opendomesday.org)), with larger settlements appearing mostly in the traditional Mercian heartlands of the Trent Valley, as well as in the hinterland of the *burhs* at Chester, Bridgnorth and Stafford, and at previously Roman sites such as Uttoxeter and Rocester (Ibid.). Although little tenth-century charter evidence survives to illustrate what agricultural land use patterns were in effect, it has been suggested that much of this less-productive landscape was occupied with sheep pasture (Brooks, Gelling and Johnson, 1984, 137-155; Hodges, 1991, 97-98). Certainly, the adoption of open field arable agriculture, which may have occurred in parts of England as early as the eighth century, (Hall, 1981), is potentially referenced in mid-ninth-century Worcestershire, but does not appear until the mid-late tenth century in wider Mercia (Hooke, 1988; 1990). In the more marginal territory, as can be seen in areas of Shropshire and Herefordshire, open field agriculture remained consigned to small and scattered areas, with infield-outfield agriculture remaining predominant, indicating smaller and less variable populations (Ibid.; Hooke, 2001, 169; Rowley, 1972, 137).

The high cost of maintaining the burghal network and its garrisons would have been even more of a burden on this less viable territory than it already was on the far more productive landscapes of Wessex and the south-west Mercian lands (Williams, 2001, 295-309; 2002, 293-308). A similar situation is argued to underlie a paucity of burghal sites in south-west Wessex, with more marginal land around Dartmoor and Exmoor less able to support substantial military installations (Brooks, 1996, 136-141). These factors must have had considerable impact on Æthelflæd's ability to establish an extensive network of burghal sites, and provide the necessary population and logistical supply to maintain garrisons where they were strategically necessary. A landscape archaeology approach may shed more light on the means by which the Mercian state was able to overcome these issues and maintain the necessary military presence and means of supply in these strategically important but more marginal territories.

It is thus that five main research questions have emerged: Firstly, to what extent were *Æthelflædan burhs* designed to operate as part of a coherent network, and what forms did this network take? Secondly, how effective was *Æthelflæd's* burghal series in the prosecution of her and later English political and military objectives? Thirdly, how heavily was burghal design and function influenced by the *Burghal Hidage*, previous systems of fortification or the landscape and geography of Mercia? Fourthly, were burghal functions 'static', or to what extent were they affected by changing political, military and cultural contexts? And fifthly, did Midlands *burhs* differ significantly in function from those of the *Burghal Hidage*? The following chapters will investigate these questions through a variety of approaches and individual methodologies in order to provide a re-assessment and reinterpretation of *Æthelflæd's* tenth-century burghal network.



## II: Burghal Paradigms: Bridgnorth, Eddisbury and Chirbury

Any network is only the sum of its parts, and a reinterpretation of the tenth-century Mercian burghal network must necessarily approach the sites themselves as well as the ways in which they interacted. Chapter 3, below, investigates the physical structures which allowed the Mercian defensive system to function and the use and impact of the landscape on Mercian strategic planning, but it is first important to examine some of the individual burghal sites which would have comprised the focal hubs of any 'defence in depth' strategy postulated by Baker and Brookes (Brookes, 2013, 45-50 and 58; Baker and Brookes, 2013, 118). The conflation of major Mercian population centres with the actual series of *burhs* built by Æthelflæd as recorded in the *Mercian Record* not only draws attention away from smaller Mercian sites, but also causes those *burhs* to be judged by the same metrics as their Alfredian predecessors, and may lead to important sites within the network being overlooked for not fulfilling the checklist of civil and settlement functions which might be expected to occur in a West Saxon *burh*. It is important to investigate these often-overlooked sites on their own merits to determine the roles they fulfilled, reasons underlying their siting and design, and the way in which their functions shaped the wider Mercian burghal network.

The survival as active sites of the *burhs* built by Æthelflæd as she consolidated the territorial integrity of Mercia in the early tenth century has been far less extensive than that of their predecessors listed in the *Burghal Hidage*. Three of the thirteen sites fortified between 890 and 915 exist as no more than names and hypothetical locations, and archaeological investigations of the others have focused either on areas that have been developed or where traces of the burghal defences were still extant. Carver's investigation of Æthelflædan Stafford was a response largely to its rapid urban development in 1975 (Carver, 2010b, 9) and much of Bassett's work on the defences at Worcester, Tamworth and Hereford was based on known elements of the surviving medieval town defences (Bassett, 2008, 180-5). Compared to these sites, the *burhs* at Bridgnorth, Eddisbury and Chirbury have received relatively little attention, either archeologically or historically. This is partially due to the way in which these sites have developed: Eddisbury remains as an abandoned hillfort and Chirbury is a small village with a population of little more than 300, while archaeological efforts at Bridgnorth have largely been focused on locating and examining the town's later medieval and Civil War defences, to the extent that the potential for Anglo-Saxon archaeology has largely been overlooked. Nonetheless, these sights still offer a critical insight into Æthelflæd's planned burghal system, the ways in which sites were fortified, as well as some of the potential reasons why some burghal sites transitioned into urban centres and others vanished entirely.

Haslam's insistence that the Mercian *burhs* formed a 'disparate and non-contemporary series whose individual elements were created to implement a quite different set of political, economic and military strategies' with no underlying strategic system (Haslam, 2006, 140) belies a complex scheme of construction and defence by Æthelflæd. This used a tried and tested system, tailored to defend the Mercian heartlands and provided a base from which Mercian armies could collaborate with Edward the Elder in retaking the Danelaw. After her initial fortification of Chester in 907, Æthelflæd's programme of construction between 910 and 915 gave 'a new solidity' to the defences of Mercia and finally guaranteed territorial security to the extent that Mercian power could now be projected beyond its borders both into Wales and the Danelaw (Stenton, 1971, 326). Indeed, in the two years following the construction of the last West Midlands *burhs*, Mercian forces launched retaliatory expeditions into Wales to *Brecenanmere* as well as playing a major role in the English offensive campaign against the Danelaw in 917, capturing Derby and securing the western flank of Edward the Elder's attack into East Anglia (ASC, MS.D, s.a.916-917, Whitelock, 1961, 63-65).

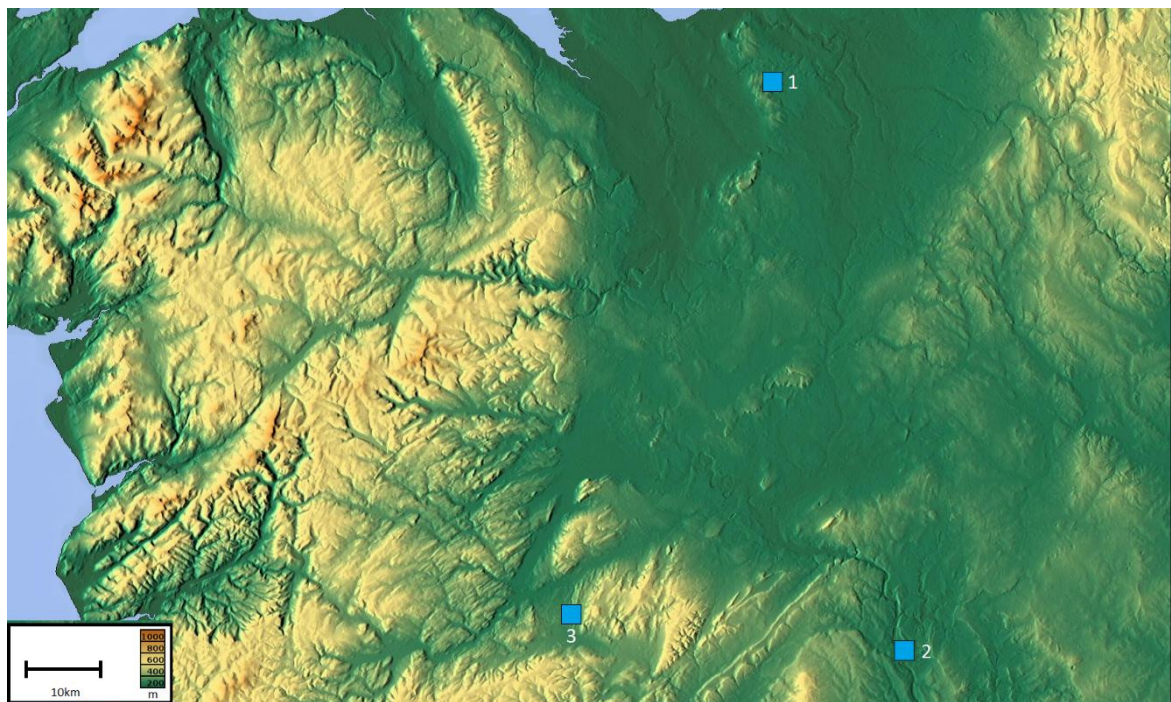


Figure 6: Eddisbury (1), Bridgnorth (2) and Chirbury (3) within West Mercia. Base map, USGS; Maps-For-Free (2016)

The burghal fortifications at Eddisbury, Bridgnorth and Chirbury are exemplars of the strategic planning behind the Æthelflædan burghal network. Unlike its predecessor in Wessex, the Mercian network was able to expand from a relatively secure base; its southern frontier was defended by the West Saxon *burhs* at Oxford, Wallingford, Cricklade and Malmesbury, and the Welsh border largely pacified by a series of military alliances and campaigns led by Ceolwulf II and Æthelred in the late ninth and early tenth centuries (ASC, MS.D, s.a.893, Whitelock, 1961, 56; Charles-Edwards, 2001, 89-

106). Mercian fortifications could therefore be concentrated on securing the borders with the Danelaw to the North and West (Bassett, 2011, 16-17). As in Wessex, *burhs* were sited in commanding positions at transport nexus, along major roads or rivers, or at strategic river crossings.

Williams argues that Æthelflæd's *burhs* may appear as less of a network than her father's because of the Mercian geography; with *burhs* controlling access to the Dee and the Mersey, there was arguably less need for the inland defence in depth provided by West Saxon *burhs* such as Shaftesbury or Winchester (Williams, 2013, 153). With western Mercia's poorer land and more dispersed populations, Æthelflæd could also afford to fortify proto-urban settlements such as Tamworth without leaving major gaps in the defences of Mercia on a wider scale, and allowed for the siting of *burhs* in locations where they not only provided defensive control of the road and river systems, but also fulfilled the needs of a dispersed administrative system and decentralised government (Reynolds, 2013, 22-23; Williams, 2013, 153-155). The Eddisbury, Chirbury and Bridgnorth sites were all influenced by these factors of defence and government, and reflect them in their roles and locations.

### Eddisbury:

Eddisbury hillfort (SM 25692) is a former Iron Age defensive site located in the Delamere forest, approximately 14km east of Chester, and 10km south of the *burh* at Runcorn. The hillfort is located on a spur of high ground immediately above Watling Street, which connects with the Roman Chester – Middlewich road 2km to the west, and sits near two other Iron Age hillforts: Kelsborrow Castle (Cheshire HER 833), 3km to the south-west, and Oakmere (Cheshire HER 848), 2.75km south-east.

Named as *Eadesbyrig* in the *Anglo-Saxon Chronicle* and fortified by Æthelflæd in 914, Eddisbury was well sited both for its own defence and for the mutual defence of the other Mercian *burhs*. As well as its commanding position overlooking the major Roman road immediately to the south of its defensive scarp, the burghal garrison would have been able to reinforce Chester quickly, as well as intercepting raiders coming south from Northumbria through the Aire Gap or landing along the Mersey until the construction of the *burh* at Runcorn in 915 (Stenton, 1971, 326). Following the establishment of the Runcorn *burh*, the garrison at Eddisbury would also have been able to prevent the *burh* there from being isolated, given its position on the north bank of the river Weaver.

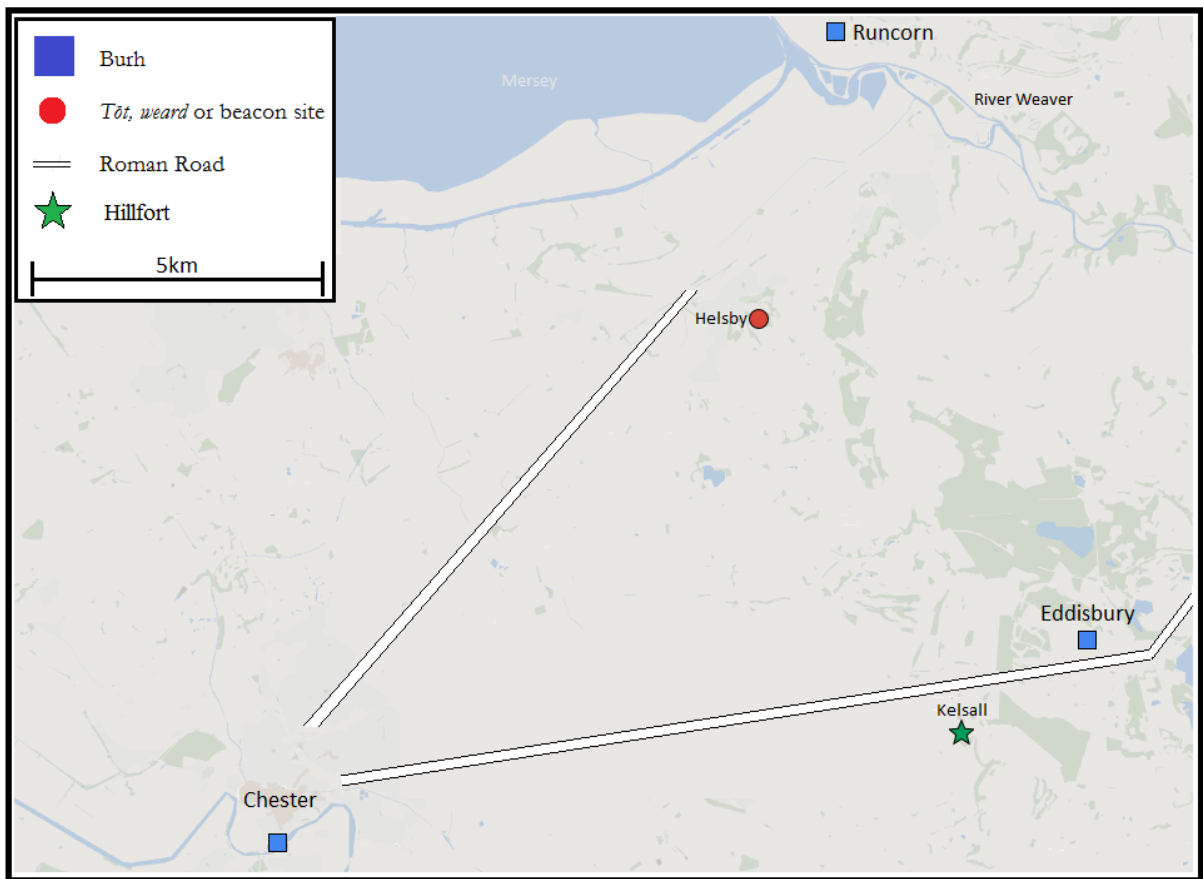


Figure 7: Eddisbury within the environs of the Cheshire Plain. Base map, Google Maps (2016)

The spur on which Eddisbury is situated is an outcrop of the Cheshire Sandstone Ridge, overlooking the Weaver Valley which lies to its east, and the hillfort was constructed to make best use of defensive features in its contemporary landscape, existing as a bivallate hillfort with its ramparts reinforcing the naturally occurring scarp on each side of the promontory as well as both an outer and an intervening ditch. Stenton records Eddisbury as one of only two Mercian sites established as part of Æthelflæd's series of fortifications where 'considerable remains' of the defences are extant and indeed substantial elements of the hillfort can still be seen (Stenton, 1971, 335).

Both the north and north-western sides of the defences are largely intact (*Fig. 9*, areas 1 and 2, below), although they have been somewhat damaged by centuries of ploughing, as well as some subsequent quarrying of the scarp. These remains can still be seen very clearly in aerial photography of the site (see *Fig. 8*). To the south and east (*Fig. 9*, areas 3 and 4), the natural defences are still visible but the ramparts here are more degraded, and the south-west corner of the hillfort has been largely demolished for the construction of agricultural buildings for Old Pale Farm now sited on the hill (NMR: SJ 56 NE 1). Structurally, Eddisbury has been divided into three main areas for the focus of archaeological interventions: the main body of the hillfort inside

the primary rampart including an entrance at the east end (*Fig. 9*, areas 2, 3 and 4); the north-western end inside the second rampart including a second entrance adjacent to Old Pale Farm (*Fig.9*, area 1); and Merrick's Hill to the south-east (*Fig. 9*, area 5), also identified as 'The Chamber in the Forest' for a royal hunting lodge among evidence of later medieval reoccupation. Eddisbury was first scheduled as a site in 1934, listing 'strong potential' for surviving below-ground remains of the hillfort (Cheshire HER: 866/1/3).

Eddisbury was first investigated between 1935 and 1938 in a series of four excavations by W.J. Varley. Varley's research was not published at the time, and remained unpublished until a summary in the 1950 *Transactions of the Historic Society of Lancashire and Cheshire* (Varley, 1950, 1-68). In this intervening period, Varley's catalogue of finds and much of his archival data was lost, likely during the events of the Second World War (*ibid.* 1). Varley's work was largely confined to the ramparts, as at the time of his excavation the interior of the hillfort was occupied with arable farming (Varley, 1950, 7). He also ignored the southern ramparts as these appeared to have been hewn from the scarp of the hill itself (*ibid.*)



*Figure 8: Aerial photography of Eddisbury looking south. Image from the University of Liverpool Habitats and Hillforts Project (2011).*





Figure 9: 'Hillshade' LIDAR (angle: 45° azimuth: 315°) of Eddisbury Hillfort illustrating inner and outer ramparts. Roman road and natural defences also clearly visible. LIDAR data courtesy of Cheshire West and Chester Council (2015).

Varley's extensive excavations of the defences set the precedent for establishing sequences of occupation at Eddisbury (Shaw and Clark, 2003, 2). The site was not then further investigated until it was surveyed in 1977 by A. Ferguson on behalf of the Ordnance Survey, although this remained unpublished and was made available through the Cheshire West and Chester Council archives (Ferguson, 1977). The Royal Commission on the Historical Monuments of England carried out further surveys at Eddisbury in 1987, assessing the site as both Iron-Age hillfort and Anglo-Saxon *burh*, and RCHME field data was used in a 2003 desk-top assessment by English Heritage and Cheshire County Council (Cocroft *et al*, 1989, 129-173; Shaw and Clark, 2003).

A watching brief was undertaken in 2006 by Gifford and Partners in preparation for the 2009 Habitats and Hillforts Project carried out by Cheshire West and Chester Council in conjunction with the Forestry Commission and Earthworks Archaeology (SJ55366933; Webster, 2006), with a geophysical survey in 2010 followed by two phases of excavations in 2010 and 2011 which included fifteen trenches dug throughout the main enclosure, both ramparts and Merrick's Hill, with five further trenches dug at Merrick's Hill by the University of Liverpool. This work was informed by the discovery of Varley's original catalogue in private archives, although these remain unpublished. The majority of these trenches were re-excavations of Varley's original

works, although opportunity was taken to open some trenches in the interior of the hillfort. The extensive records of the 2010/1 excavations remain available only as 'grey literature' through the co-operation of the Cheshire West and Chester Historic Environment Service (subsequently referred to as CWACHES) records department, although a very brief summary was published by Garner in 2012 as part of a summary pamphlet of the wider Habitats and Hillforts Project (Garner, 2012, 41. Twelve separate stages of occupation and activity at the hillfort have been identified, stretching from the second millennium BC until the early eighteenth century (Varley, 1950, 52; Shaw and Clark, 2003, 5).

The first three stages of activity at Eddisbury are suggested to have occurred prior to the construction of the hillfort, with a pit and hearth tentatively dated to c.1870 BC (CHER 866/1/1) followed by an eighth-century BC palisade enclosure (CHER 866/1/2) and a circular stone feature identified as potentially a cairn or round hut, with construction and occupation of the actual hillfort (CHER 866/1/3) assigned to phases four through eight, between approximately 410 B.C. and A.D. 130, with phase nine denoting the abandonment of the hillfort and the partial demolition of its defences during the Roman period. Varley had previously suggested the original hillfort was univallate, although this has since been revised by the 1989 reassessment of Varley's work (Cocroft *et al*, 1989, 129-173), and detailed topographic surveying by English Heritage and finds from the 2010 excavations have radiocarbon dated the cutting of the second rampart to around c.400-200 B.C., roughly contemporary with the construction of the original fortress and, whilst distinct, indicative of continuing construction rather than a major re-modelling of the site (Varley, 1950, 32; Cocroft *et. al.*, 1989, 129-173; CHER 866/1/3; CWACHES, 2012).

Seen below are Varley's 1950 plan of the 1936-8 excavations and a map of the major excavation areas of the 2010/1 Habitats and Hillforts Project, illustrating the greater scope and detail of the later excavations. Although Varley's 1950 work records the wider areas of the hillfort within which his work was carried out, it is nonetheless sometimes vague as to the precise locations, particularly in which some finds were located, and part of the 2010/1 project aimed to locate Varley's original excavation sites. Varley's excavation of the Eddisbury ramparts revealed that during the ninth phase of activity at the site, the ramparts themselves were largely demolished, in many places being levelled with the resulting earth and stone used to fill in the hillfort's ditches (Varley, 1950, 56-57).

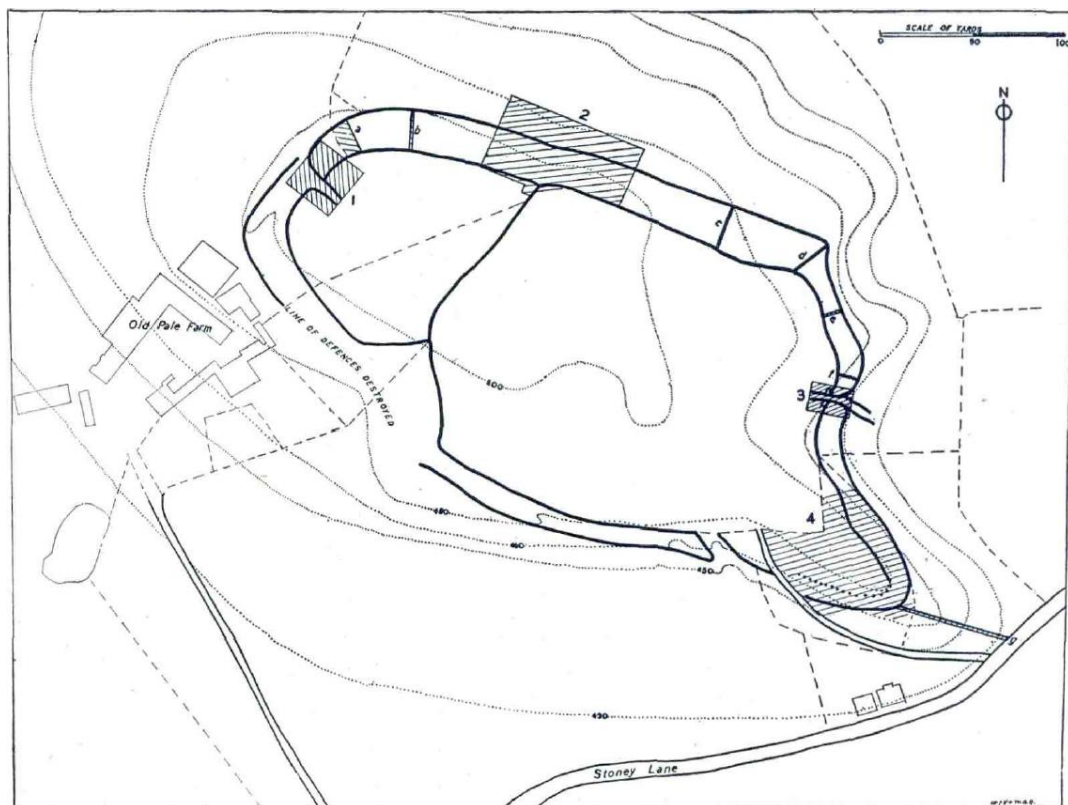


Figure 10: Varley's 1950 plan of Eddisbury Hillfort, with interventions marked - Varley notes 'Heavy lines denote ramparts. The areas of excavation are shown by hatching and are enumerated 1, 2, 3 or 4 or lettered a-e.' From Varley (1950).

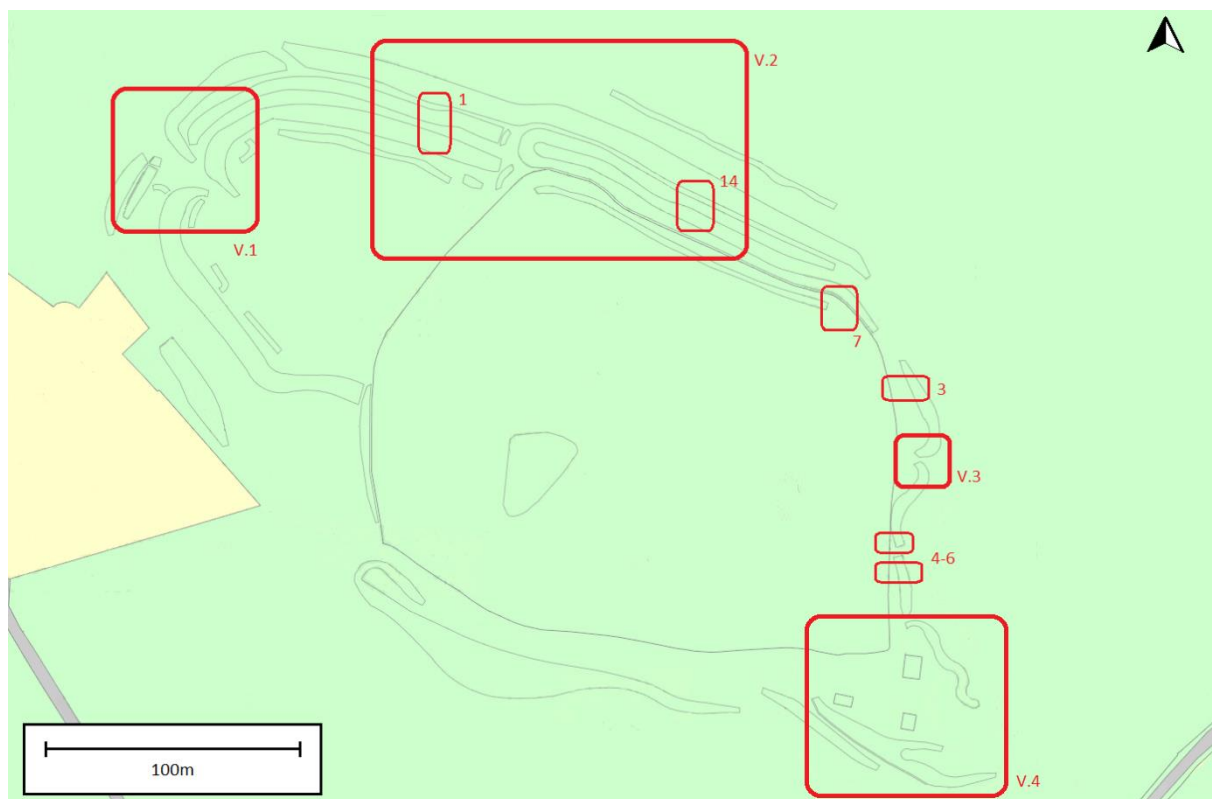


Figure 11: Excavation areas at Eddisbury Hillfort. Significant Hillforts & Habitats Project trenches are denoted numerically, and Varley's excavations are denoted with 'V. #'. Major areas include V.1, the 'gatehouse' of the outer rampart, and V.2 the northern ramparts, with 2010/1 excavations of the ramparts at trenches 1, 3, 4, 5, 6, 7 and 14. Noted areas will be of subsequent reference. Base map from Cheshire West and Chester Council (2016) with notations the author's own.



The presence of detritus thought to originate from the Roman tiler at Holt implies that the defences were likely infilled by the Roman XX Legion during their occupation of Chester in the second century, likely to render useless Eddisbury as a site of British resistance (CHER 868/1; Varley, 1950, 10). The extent of the demolition was made particularly clear by the evidence of phase ten of the occupation, a fourth century, possibly Romano-British occupation of Eddisbury; excavation in areas V.1 and V.2 (see Fig.11) found the stone kerbing of a series of huts, dated to the late third to mid fourth century by sherds of pottery, constructed on the course of the ramparts, which indicates that Eddisbury was occupied as an open-field site at this time (CHER 868/1). This therefore post-dates the construction of the ramparts which lie on top of these remains and their attendant ditch, which is still extant, to at least the end of the fourth century, although given there is no trace of occupation between the construction of the huts and phase eleven of Eddisbury's occupation, the *Æthelflædan burh*, it can be inferred that the ramparts and ditch were not constructed until then (Ibid.; CHER 1554/1/2).

The ramparts at Eddisbury follow an unusual pattern insofar as the outer rampart is as wide as, and in some places even wider than, the inner, and does not appear to have been significantly lower than it despite the natural scarp of the hill. This is unusual as the inner rampart of 'typical' Iron Age defences tends to afford the defender of the inner ramparts a view, and thus a field of fire, over the heads of those on the outer. This, however, does not appear to have been the case here. Given the size of the inner core of the outer rampart, which is significantly smaller than the extant rampart as a whole, this may have been a by-product of the tenth-century reconstruction which may have re-designated the outer ramparts as the primary defensive circuit of the hill, since the inner rampart may only have been partially reconstructed and in some areas re-used for industrial purposes. In the centre of the Eddisbury enclosure is a large depression labelled as an 'old quarry' although this is likely to be later medieval in origin (CHER 867). On the northern slopes of Eddisbury Hill, there may be an artificial mound potential related to signalling (see chapter 3) although this has not been investigated during any period of excavation at the site.

With the original Iron-Age defences of the hillfort severely degraded to the point of having been at least partially built over, it must be assumed that *Æthelflæd's* refortification of Eddisbury in 914 was not the necessary occupation of an 'emergency *burh*' with minor repairs (Haslam, 2006, 136-139) but rather a significant investment of men and materiel into a construction project on a similarly large scale as other major Mercian sites, albeit one facilitated by Eddisbury's natural defences and surviving Iron-Age plan. Prior to the 2010/1 excavations, however, no corroborating evidence of

definite tenth-century Anglo-Saxon occupation had been found (Varley, 1937; CHER 868/2). A re-examination of Varley's area 'd' in the north-east corner of the hillfort during this period yielded the first definite evidence of Anglo-Saxon activity at Eddisbury during the burghal period in the form of a clay oven which had been cut into the inside face of the inner rampart (Cheshire West and Chester Historic Environment Service, 2012; Garner, 2012, 66).

Located in Trench 7 of the 2011 excavation (see *Fig. 11*), the bread oven consisted of a partially exposed construction pit, lined with a deposit of clay which had then been fired until biscuit hardness. Archaeomagnetic dating carried out on a sample of the clay lining determined a last firing date of between c.745 and 980 AD, presenting a 64-year period following the known establishment of the *burh* in 914 during which the oven may have been in use (CWACHES, 2012). The location of the oven may imply that this section of the north-eastern inner rampart did not play an active role in the Anglo-Saxon defensive perimeter of Eddisbury; the extant outer ramparts and natural defensive scarp here are substantial, which may explain the decision not to rebuild the inner ramparts completely, and for battle to have reached the internal ramparts of the defences would suggest a literal last-ditch defence before which the established Mercian tactics would have comprehensively failed.

The establishment of ovens within proximity to the defences appears to be a phenomenon at other burghal sites: At Wallingford, two oval clay ovens were found near the northern ramparts of the *burh*, and at Stafford a series of ovens were excavated in St. Mary's Grove, near the potential location of the burghal defences as suggested by Carver (Christie and Creighton *et al.*, 2013, 115-119; Carver, 2010b, 165). The presence of an oven further reinforces the status of Eddisbury as a significant planned site rather than as an emergency refuge, as the provision of supplies to the garrison for an extended period has clearly been considered.

Æthelflæd's rebuilding of Eddisbury would have been a major undertaking and a substantial investment of labour would have necessarily been involved in the clearing of ditches and the rebuilding of the ramparts. Substantial portions of these defences are still extant; the inner rampart is 15m wide and up to 6m high on the north side of the fortress, and is revetted with dry stone walling which is visible in areas on its northern face. Behind this, the intervening ditch between ramparts is up to 10m wide, and survives to a depth of 0.5. The outer rampart is 16m wide at its base and 5.5m high with no defensive ditch. The full extent of the rampart encloses 5.4 hectares.

Eddisbury originally had two entrances, one in the eastern defences (*Fig. 9*, area 3; *Fig. 11*, area V.3) that appears to have been cut through the ramparts, and a second, larger entrance in the western ramparts (*Fig. 9*, area 1; *Fig. 11*, area V.1) which passed through a gap in the outer rampart and was marked by inturns in the inner. The eastern entrance was first excavated by Varley in 1937-7, and again by the Habitats and Hillforts team in 2011 (Varley, 1950, 29-33). The entrance appears to have originally built during the construction of the outer ramparts, and consisted of a steep stone stair cut from the defensive scarp which entered the ramparts through a covered passageway demarked by seven pairs of post-holes and flanked by a pair of guardrooms built to the north and south (Varley, 1950, 29 and 34; CHER 866/1/3). The defences here, however, showed evidence of having been demolished and covered during phase 10 of activity at Eddisbury, and do not appear to have been reconstructed as a gate during the 914 refortification, instead being reconfigured as part of the main rampart, although the course of the stone stair remained evident (Varley, 1950, 33; CWACHES, 2012). The main burghal entrance, therefore, was that in the north-western ramparts, although this was not re-excavated during the 2010/111 intervention. At this entrance, a cobbled road surface approximately 2.3m wide was protected by inturns of both the inner and outer ramparts to the north, and the inner rampart to the south, and entered the fort through a passageway lined by dry stone walling supported by oak beams and clay cladding (Varley, 1950, 20).

During the Roman destruction of Eddisbury, the original rampart appears to have been stripped down to its clay foundation and the stonework used to infill the ditch, which was subsequently built over and does not appear to have been re-cut during the reconstruction. Instead a stone revetment supports a new laid-clay core 4.4m across, rebuilding the ramparts to a new height (Varley, 1950, 10-15). This stone revetment is stratigraphically contiguous with post-Roman (probable early Anglo-Saxon) hearths found on areas of a clay floor abutting the original laid clay base of the Iron-Age ramparts and implies that this entrance was refortified as part of the 914 reconstruction.

The best-surviving elements of the Eddisbury defences are those on the northern ramparts, seen in Varley's areas '2', 'b', 'c' and 'd' in *Fig. 10* (See *Fig. 9* area 2 and *Fig. 11*, area V.2). These were re-investigated in 2010/111, with trench 1 excavating the inner rampart and trench 14 the ditch and outer rampart in Area '2', and trenches 3 and 7 excavating areas 'c' and 'd' (See *Fig. 11*; CWACHES, 2012). The northern defences of Eddisbury in area '2' consisted of an inner rampart up to 9.5m in width and 1.3m in height, an intervening ditch, an outer rampart up to 8m wide and up to 1.8m in height, and an outer ditch up to 4m deep with a width of 7.62m at the mouth and 0.9m at the base (*Ibid.*; Varley, 1950, 25).

The inner ditch was located in trench 14, where it was measured at approximately 4m wide and 1.96m deep, and in trenches 3 and 7, where it was approximately 5.5m deep and 1.8m deep; however, it contained evidence of Roman infilling including a sherd of courseware indicating that it not been re-cut to become part of the burghal defences (CWACHES, 2012; Garner, 2012, 60).

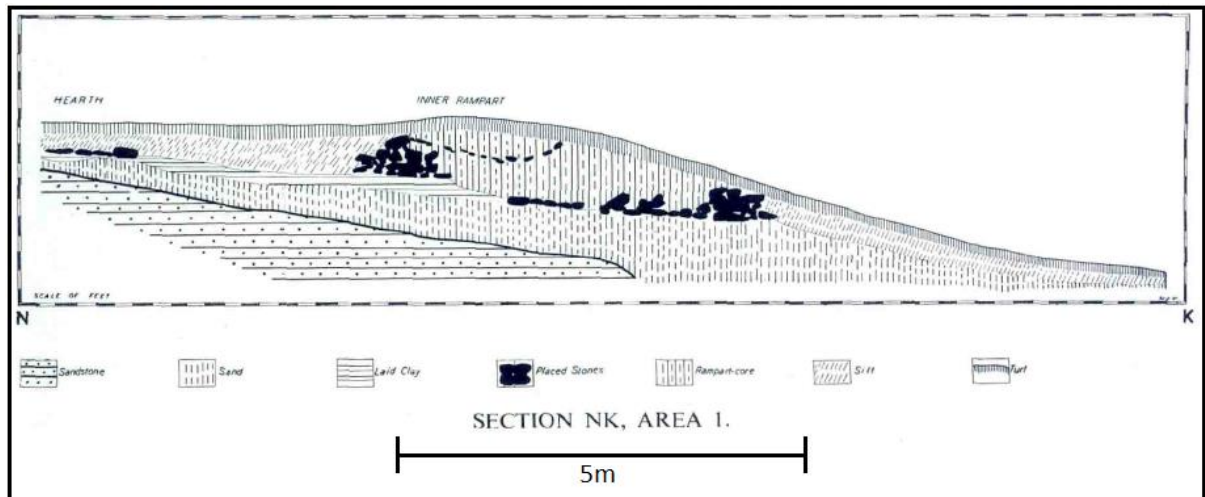


Figure 12: Varley's 1937 plan of ramparts at the north-west entrance (Fig. 11, Area 1) showing areas of Anglo-Saxon re-construction. Scale on Varley's plans from the 1930s excavations are rare and often vague. The scale here is the author's own, and approximate. Original image from Varley, (1937 and 1950).

The outer ditch, however, contains no infill and had merely been hidden by natural silt deposits, which led Varley to conclude that it had either been re-cut during the construction of the *burgh* or was an entirely new feature added at that time (Varley, 1950, 28-29). The inner ditch had been constructed in a segmented fashion, with large pits separated by a narrow ridge of bedrock, typically an Iron Age technique; however, this does not appear to have been the case in the outer ditch, signifying an entirely separate and later phase of construction.

Varley recorded the nature of the ramparts in area '2' briefly during his notes of the 1935-8 excavations, focusing more on a large double pavement of laid flagstones underlying both. This area was re-excavated by trenches 1, 3 and 7 of the 2010/11 excavations and largely corroborated Varley's original findings in greater detail. As at the north-west entrance (Fig. 11, area V.1), the foundation of the original Iron-Age ramparts consisted of a layer of re-deposited red clay over which an 'occupation layer' has formed, above which sits a dry stone revetment containing a core of red clay and sandstone fragments surviving in trench 1 to a width of 9.5m and a height of 1.3m (Varley, 1950, 24; CWACHES, 2012). Further east, the rampart was 5.88m wide and

0.7m high, with the dry stone revetment surviving in places to a height of 0.8m. To the south of Varley's area '3', trenches 4 and 6 of the 2010/11 excavations again found the inner rampart, surviving in this case to a height of 0.65m and a width of 5m (CWACHES, 2012). The outer rampart was first excavated by Varley in areas '2' and '3', and later trench 3 of the Habitats and Hillforts Project excavations. The outer rampart sits at an average distance of 11m from the inner ditch and is extant as a composite structure with two surviving stages of construction. The first stage again consists of a layer of laid clay and a lower core of large sandstone rubble approximately 3.7m wide and 1m high, above and behind which is a secondary stage of construction consisting of a revetment wall of sandstone blocks containing a glacia of smaller sandstone rubble which now exists approximately 8m wide and 1.8m high (Ibid., Varley, 1950, 24-27).

In trench '3', the rampart was also identified, measuring 7.7m in width and 0.7m in height. The spread of sandstone rubble here, however, shows evidence of probable collapse of at least the inner rampart, likely as a result of agriculture or the degradation of the dry-stone walling revetments, and this would explain the decline of the outer ramparts in this area also (CWACHES, 2012; Garner, 2012, 66). The excavations carried out by Liverpool University on the site of Merrick's Hill, previously Varley's area '4', also found evidence of a collapse layer at the perimeter of the 'Chamber in the Woods' site, indicating that the hillfort ramparts did extend here, although they are severely degraded to the point where they are no longer visually discernible from the naturally occurring defensive scarp (Mason, 2011).

With such clearly separate stages of construction in both the inner and outer ramparts, Varley attributed the 'upper' cores of the ramparts to the 914 reconstruction of the fortress by Æthelflæd (Varley, 1950, 26). The Habitats and Hillforts investigation of Eddisbury corroborated that the 'lower core' of the outer rampart indeed represents the original Phase 5 primary outer rampart of the hillfort, but suggests that it may have been truncated and re-cut during Phase 8 of activity at the site instead, leading to the construction of the larger rampart at this point (CWACHES, 2012). This is based largely on the radiocarbon dating of the re-cutting of the inner ditch and rampart and the discovery of the Anglo-Saxon oven and hearth in trench 7. The outer ramparts in trench 3, which were constructed from a series of dumped deposits, however, were not dated, nor was the outer ditch, and no attempt was made to fully re-excavate the hearths or the occupation floor stratigraphically contemporary with the rebuilt inner ramparts. (Garner, 2012, 59-61; NMR SJ 56 NE 1). Unfortunately, any artefacts themselves from this 'occupation layer' are now lost, and thus cannot be comprehensively dated; however, Varley's own record of his investigation dates this layer through distinctive

pottery finds to a sixth- to eighth-century Anglo-Saxon occupation (Shaw and Clark, 2003, 2-3; Varley, 1950, 59). The revetment of ramparts contiguous with and above this layer therefore surely suggests that this stage of construction at least in the inner ramparts occurred subsequently.

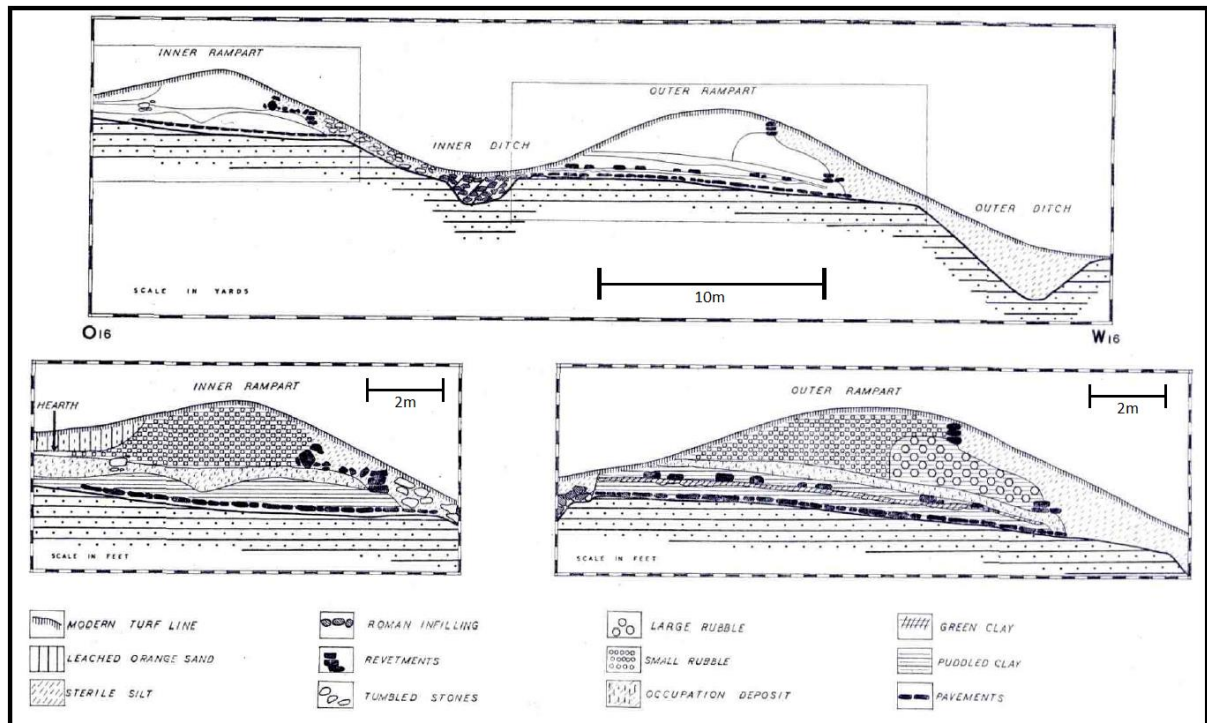


Figure 13: Varley's 1937 sketches of defences in Fig. 11, area V.2, approximately near to 2010/1 series trench 7, showing both inner and outer ramparts. Scales are again the author's own. The size of the outer rampart and similarities with Fig.2 should be noted. From Varley (1937).

If the extant outer ramparts and ditch were re-cut during Phase 8 of the occupation of Eddisbury, there is nothing to explain why these survived the systematic destruction of the defences seen elsewhere during Phase 9, which levelled much of the ramparts elsewhere, filled the inner ditch and indeed completely demolished the south-eastern entrance. Given the difference in the construction of the outer ramparts seen between Varley's area '2' and trench 3 of the 2010/11 excavations, however, it is possible that more of the outer bank survived and was subsequently strengthened and rebuilt in area V2 (See Fig. 11), while the more hurriedly built defences in trench '3' are indicative of a complete Anglo-Saxon rebuild of the rampart, with evidence of its mild subsequent collapse due to the lack of the Phase 5 core which strengthened the ramparts elsewhere.

At this juncture, similarities can also be drawn with the probable burghal defences identified at Tamworth (see Fig.2). Varley's sketches in Fig. 7 (above) show a familiar pattern of a masonry-revetted rampart, pavement and outer ditch as postulated by

Gould, with similar dimensions at both sites. The Eddisbury defences, in particular the outer ditch, are somewhat larger than those at Tamworth, however this is likely a result of the construction of the defences into the scarp of the hill and prior Iron Age circuit compared to the flatter, riverside terrain at Tamworth.

The worth of Eddisbury and its defences has been long overlooked for study compared to sites such as Tamworth due to a tendency to examine *burhs* through the lens of urban history, and to perceive it as a *burh* that ‘failed’ to develop properly as a planned urban venture, but this was likely never its purpose. Instead we must reconsider it as what Reynolds conceptualises as a ‘focal element in a complex but dispersed administrative system’ (Reynolds, 2013, 22-23), in this case a strategically necessary and important element in a decentralised system of national defence in depth and landscape control. Minting, an activity intrinsically linked to Anglo-Saxon *burhs* by law, appears to have never been undertaken at Eddisbury even during the celebratory ceremonial minting of Æthelstan’s *Rex totius Britanniae* issue (Naismith, 2014, 76). Similarly, although there are the remains of buildings in the Merrick’s Hill area of the site, these originate from Phase 12 of Eddisbury’s occupation as the ‘Chamber in the Woods’ hunting lodge from the medieval period onwards, and the current foundations date no earlier than the sixteenth century (Varley, 1950, 40-42; Mason, 2011).

There thus appears to have been no attempt to foster at Eddisbury the civic functions of commerce, religion or local government which became central to the planned development of other Mercian burghal sites, and this itself reflects the specific underlying purposes of Eddisbury as well as the functionality of its adjacent sites. Eddisbury Hillfort sits only 14km from the site of the Anglo-Saxon *burh* at Chester, which had developed into a ‘major centre’ of Anglo-Saxon authority by the end of Edward’s reign, within less than two decades of its refortification by Æthelflæd in 907 (Griffiths, 2009, 13). Chester became not only the dominant Mercian mint, but for some time was the most prolific mint within England, as well as a significant centre of trade. With such a major site in such proximity to Eddisbury, it is only to be expected that many of the civic functions that could otherwise have been expected to arise there were instead the sole province of Chester. Eddisbury’s position in comparison made it ideally suited to providing a large garrison rapidly able to support Chester or Runcorn, but not for other ascribed burghal functions (Stenton, 1971, 335-336). The hillfort provided easy control over the local landscape and Roman road and allowed for its effective use within Anglo-Saxon strategies of defence, but provided no major junction or crossing to act as a natural hub of movement or trade. As a purely defensive and military site, however, Eddisbury is perfectly suited, and this in turn may underlie why the site passed out of use beyond the later Merrick’s Hill hunting lodge. The *burh*

provided a military presence in what had been a sparsely populated area, and helped delineate an area of relative safety in the Cheshire Plain which allowed for the rapid settlement and development of a substantial hinterland to the three *burhs* (see Chapter 5). Without civic function and developing urbanism, maintaining the garrison and defences of Eddisbury would have been a significant drain on resources, especially once the Aire Gap was defended by the *burhs* at Thelwall and Manchester. Once the Viking threat receded in the latter half of the tenth century, maintaining such a level of defences was likely deemed no longer necessary and the *burh* accordingly abandoned (Williams, 2013, 155).

### Bridgnorth:

The *burh* at Bridgnorth was established by Æthelflæd in 912, in the same year as the now missing *burh* at *Scergeat* (ASC, MS.D, s.a.912, Whitelock, 1961, 62). Bridgnorth sits on the River Severn, approximately 35km downstream of the Anglo-Saxon mint town at Shrewsbury and 14km south of Telford. The location of the *burh* at Bridgnorth has previously been a matter for debate: before the foundation of the *burh*, Bridgnorth was referred to in the *Anglo-Saxon Chronicle* as 'Cwatbrycg' in 895 and in Æthelweard's *Chronicon* as 'Cantbricge' in 910, leading to argument that the *burh* was situated in the present-day village of Quatford, less than three miles south-east of Bridgnorth and also on the Severn (ASC, MS.A, s.a.895 and 910, Whitelock, 1961, 58-62). In 912, the *Anglo-Saxon Chronicle* records that Æthelflæd constructed the *burh* simply at '*Bricge*', with the name remaining '*Brycg*' until the suffix '-north' was added at some point during the thirteenth century (ibid; Gelling, 1990, 62). Given the proximity of the two possible locations and the likely low level of settlement, it is possible that the two sites were considered collectively in terms of defence.

Strategically, Bridgnorth posed as a highly valuable location for the defence of Mercia. As a strategic location it had been used twice within Æthelflæd's living memory by marauding Danish armies (Stenton, 1971, 326). In 895, a Danish force retreating from Alfred's army at London had marched to Bridgnorth and overwintered there, erecting a fortification or *gewere wercton*, and in 910 the Danish army which invaded Mercia from Northumbria crossed the Severn at Bridgnorth before being defeated by a joint West Saxon and Mercian army under the command of Ealdorman Æthelred at Tettenhall, approximately only 18km north-east (ASC, MS.A, s.a.896 and 910, Whitelock, 1961, 58-62). That Æthelred likely died of wounds sustained at Tettenhall would have made it all the more pressing that such a strategically important point be fortified against any further Viking incursion.



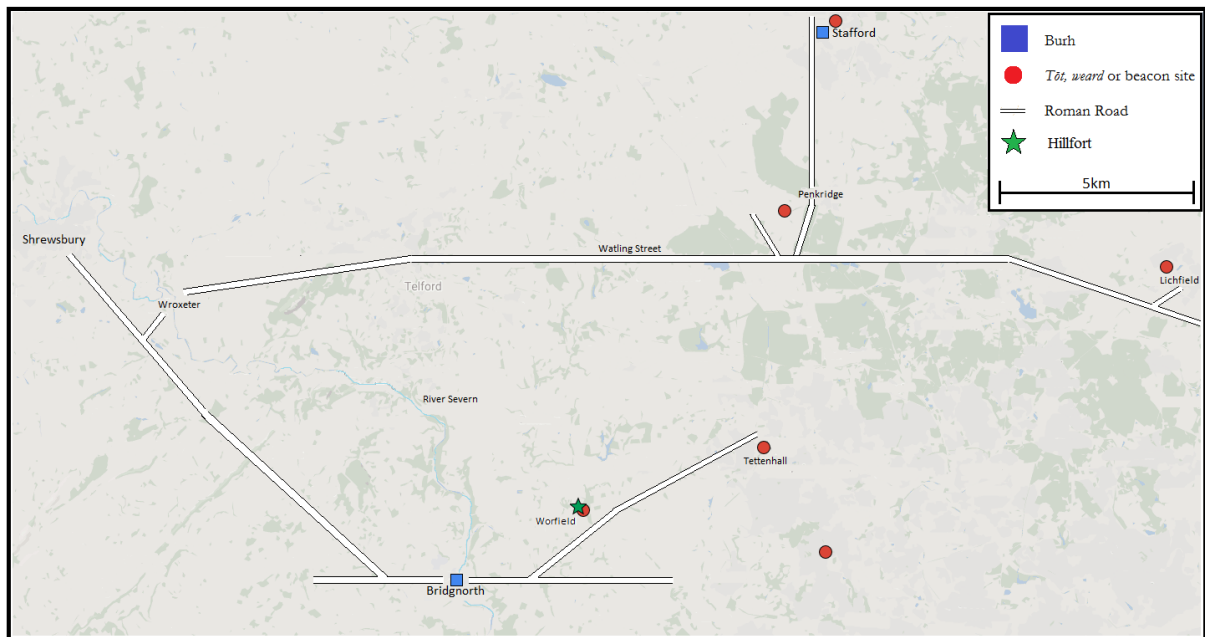


Figure 14: Bridgnorth within the environs of the Staffordshire/Shropshire border and Watling Street. Base map: Google Maps (2016).

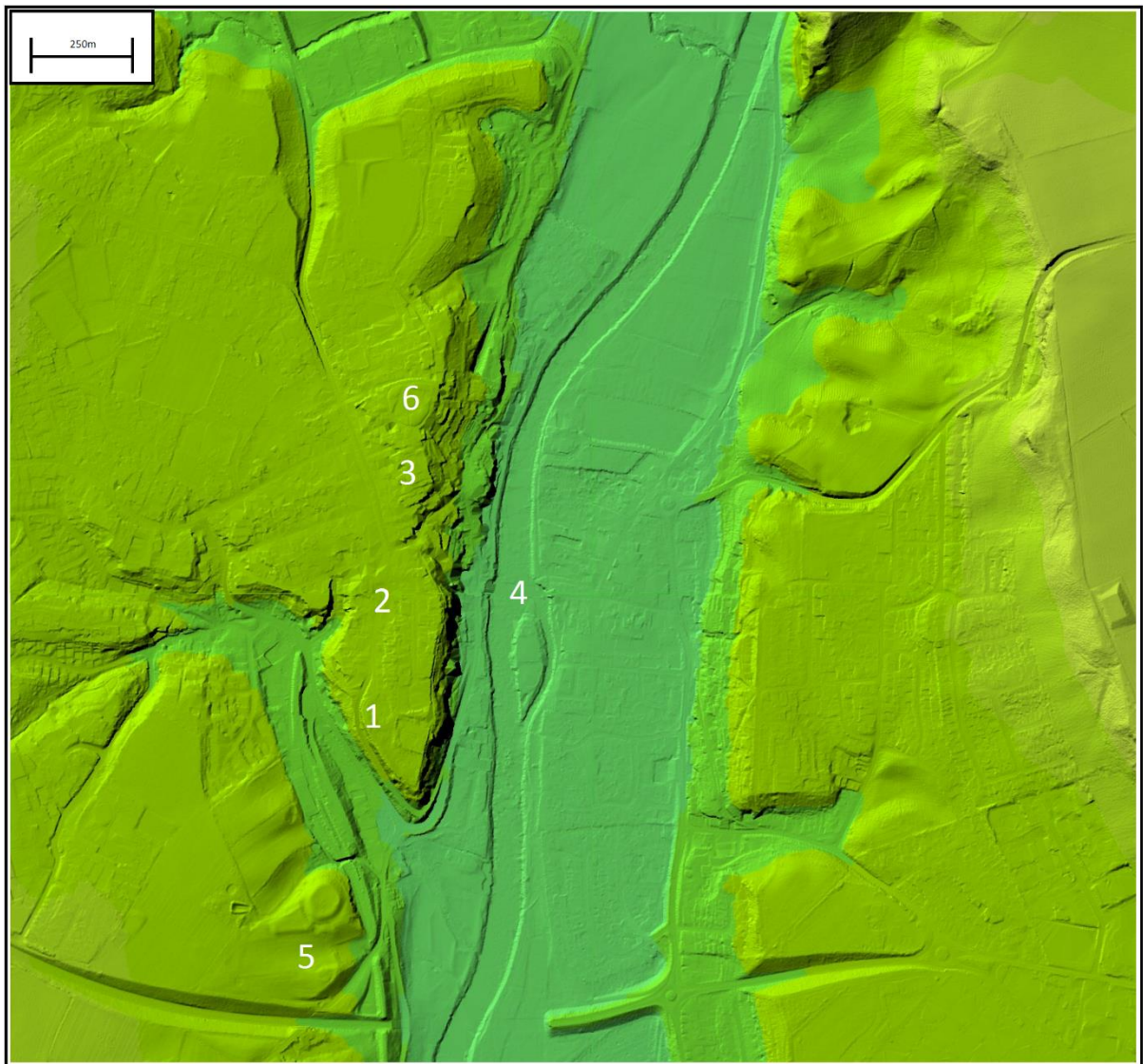
Bridgnorth was not just a crossing of the River Sever, but a significant nodal point on a Roman road network which stretched from the former Legionary fort at Greensforge in the east into Wales, crossing Offa's Dyke near Chirbury and linking with Watling Street at Wroxeter via a junction at Monkhopton (Houghton, 1960, 233-243). Although Anglo-Saxon Wroxeter was not on the scale of Roman Viroconium Cornoviorum, it was still an occupied site, with a church dating likely from the reign of Offa and a settlement on high ground overlooking a ford of the Severn, with a Roman road linking the former city to Chester (Ibid.; HER 06495, 13416; NMR: SJ 50 NE 10). Further roads linked Bridgnorth to Watling Street via Worfield and near Tettenhall. This positioning meant that any significant traffic or sizable force passing through west Mercia that wished to travel south of Watling Street or circumvent Wroxeter would be forced to cross the Severn at Bridgnorth.

The nineteenth-century historian William Hardwicke notes the ruins of a bridge being visible at low water in the river at Bridgnorth, describing it as a large structure (Hardwicke in Watkins-Pitchford, 1938, 189-216). References to 'Cwatbrycg' and 'Cantbricge' had led to some supposition that the *burh* at Bridgnorth may have been constructed to the south-east at Quatford, potentially on the site that became the late eleventh-century Norman castle, and it is possible that this is where the Danish army built their defences when overwintering in 895-896. However, when Quatford Castle was abandoned 1101, John of Worcester reported that in its stead, Robert de Bellême 'began to repair and surround with a broad and lofty wall... the castle which Ethelfeda,

lady of the Mercians, had formerly built... at a place called in the Saxon tongue Brycgge, on the west bank of the River Severn' (The Chronicle of John of Worcester, s.a.1101, McGurk, 1998, 363).

Bridgnorth Castle was situated on a steep-sided promontory overlooking the River Severn, and although in ruins by the sixteenth century, the tower keep remained defensible during the English Civil War and was thus slighted by Parliamentary forces in 1646 (Cathcart King, 1983, 241; Shropshire HER 00371). The extant remains of the castle are fragmentary and unconnected, and large areas of potential defences have been built over by successive developments within the town, and as such the original extent of the Anglo-Saxon ramparts claimed by John of Worcester to provide the basis of the defensive perimeter are difficult to locate. Nonetheless, some estimates can be made: when Quatford was abandoned, its institutions transferred to Bridgnorth along with Roger de Bellême, including the burgesses of the borough and the Collegiate Church of St. Mary, whilst twelfth- and thirteenth-century Exchequer accounts attest that Bridgnorth castle was a substantial build, with a large great hall, and 'royal' chambers, kitchen, pantry and stable all of stone, as well as a great tower with a dungeon known as Æthelfleda's Tower, turrets on outer walls, a tilt yard, a barbican in which was the Constable's house and a prison, stables, a drawbridge and a well (Eyton, 1860, 257-259; Shropshire HER 00371). This suggests that the Anglo-Saxon perimeter of Bridgnorth was of sufficient size to incorporate such a substantial castle and its attendant borough as well as its defensive circuit. That a new suburb was constructed between 1213 and 1216 surrounded by a wooden stockade and moat further suggests that the castle and borough both existed within the earlier Anglo-Saxon perimeter entirely (NMR: SO 79 SW 83).

As a promontory fortress, Bridgnorth is limited to the east, south and west by the natural defensive scarp of the spur of rock on which it sits. This, however, makes it far easier to estimate the extent to which the northern defences extended, a task simplified further by the known later expansion of the site. From east to west at the spur's widest point, the land enclosed with the probable defences of Bridgnorth measures approximate 170m, and from north to south, some 360m (NMR: SO 79 SW 6). If the twelfth-century bailey is based on the foundations of the Anglo-Saxon perimeter, then Æthelflæd's *burh* encloses very approximately 5.7 hectares of land, similar in scale to Eddisbury.



*Figure 15: Digital Terrain Model of Bridgnorth (SO79) at 1m resolution showing Castle Promontory (1), 'Outer Bailey' (2), Northern Suburb (3), Roman Bridge over the Severn (4), Panpudding Hill (5) and St Leonard's (6). LIDAR Data courtesy of Geomatics Group UK*

Archaeological intervention at Bridgnorth has been limited, largely due to the constraints imposed by urban development throughout the town. Excavation has been limited mostly to the area around the Church of St. Mary Magdalene and the park which now occupies the site of the inner bailey of the Norman castle. Efforts to trace the route of the bailey walls, and thus the underlying Anglo-Saxon perimeter, have been largely limited to field observations and brief interventions between periodic episodes of demolition and construction, or confined by the church of St. Mary Magdalene, the extant castle ruins and listed Victorian housing which now occupies the outcrop of Castle Hill (Shropshire HER 00371). The site was first surveyed by English Heritage in 1927 (ESA394) before being surveyed by the Ordnance Survey in 1960 and 1976 (ESA395 and ESA396) and again by English Heritage in 1986 (ESA397).

As well as unsuccessful excavations at Quatford (Shropshire HER 00408; Mason and Barker, 1964, 36-47; Horowitz, 2008, 1-17), the investigation of Anglo-Saxon Bridgnorth was also confused by speculation about Panpudding Hill, a ringwork and building platform 250m south-west of Castle Hill. Separated from Castle Hill by a steep valley, Panpudding Hill is clearly visible in LIDAR images of Bridgnorth as the remains of a substantial ringwork with intervisibility with Bridgnorth Castle and commanding lines of sight over the Severn and its crossings (Shropshire HER 00369). The ringwork is roughly oval in shape, approximately 84m at its widest from south west to north east, and 68m across transversely, with a steep outer scarp averaging 3.5m high cut out of the hill itself and further defended by an outer berm measuring 3m wide along the steeper north and north east sides of the hill, and up to 14m wide along the south and south eastern faces. Along the western approach to the hill, a ditch approximately 8m wide and 1m deep adds a further layer of defence. Attached to this ringwork is a well-defined enclosure also clearly visible on LIDAR, measuring 44m east to west and narrowing from 40m across closest to the ringwork to 18m across at its westernmost end. This enclosure is in turn defended by a scarp on the north, west and south sides averaging 2.5m high with the ringwork ditch at its east end. Atop this was an earthwork rampart 0.5m high in the south eastern corner, extending to 6m wide and 0.9m high at the western end, and an outer ditch 10m wide and 1.2m deep.

With these extensive defences still visible, yet clearly distinct from the Norman castle, it had been suggested that Panpudding Hill was in fact the site of Æthelflæd's *burh*, and that John of Worcester had been confused by the proximity of the two sites (Eyton, 1854, 132; Rowley, 1972, 187). With the re-use of sites such as Eddisbury, Eyton in particular suggested that Panpudding Hill may have been an Iron-Age hillfort re-fortified and expanded in 912, and the site of the Bridgnorth *burh* was debated until Panpudding Hill was re-surveyed in 1976, at which point it was deemed to be the remains of a motte and bailey castle, probably a siege castle constructed by Henry I during his investment of Bridgnorth in 1102 (Burrow, 1976; SMR 1013493). John of Worcester, therefore, appears to be vindicated, and the *burh* is indeed most likely to lie underneath the walls of Bridgnorth Castle. Unfortunately, the remains of the fortifications at Bridgnorth are far less complete or easily identifiable than those of Panpudding Hill, and have proven commensurately harder to find.

Of the Norman castle, only the keep and a fragment of the adjacent curtain wall remains; a large tower slighted to a lean of 15 degrees by Parliamentary forces during the Civil War. Further remains are fragmentary at best. The later city and castle walls are predicted to run roughly along the edges of the castle promontory and then along the western edge of what is now the High Street, in keeping with the line of the

promontory, with the town's north gate level with a bend in the river and the site of St. Leonard's Church, and many of the archaeological investigations at Bridgnorth have been occupied in finding this later medieval perimeter as this is both more accessible and more likely to have survived (Shropshire HER 00374). Excavations in Moat Street in 1998 located the outer, northern edge of a defensive ditch, but this was not fully excavated and no dateable finds were located (SSA20965; Hannaford, 1998a). This ditch passes near to St. Leonard's Church (*Fig. 15*, No.6), which has potentially eighth-century carved stonework, and suggests that this may have originally been an extramural institution at the time of the Anglo-Saxon *burh*, which was later incorporated within the circuit of the expanding thirteenth-century settlement (Shropshire HER 05633).

A series of excavations on the predicted route of the defences on East and West Castle Streets, running either side of the castle promontory (*Fig. 15*, No.1) in 1994 revealed that the construction of a series of cellars underneath the Victorian housing there had obliterated all archaeological traces there and truncated all deposits back to the natural (SSA20961; Johns and Hiller, 1997; SSA20962; Mudd, 1995). During the construction of a post office at the junction of both Castle Streets in 1901, a stretch of sandstone wall was found which appears to be part of the bailey walls. Despite this, the junction with the outer city defences was not investigated and now lies under the post office building (PRN 00372).

The eastern defences have proven particularly difficult to locate, with some reports suggesting that the particularly steep slope and cliffs here meant that no defences would have been necessary (SSA20893; Hannaford, 2000). Excavations in 2000 on a plot of land at the rear of 62/63 High Street attempted to trace the route of the eastern wall but found no defensive features there (*ibid.*). Further evaluation in August 2012 at this site found a ditch which was originally suggested to represent the medieval defensive ditch however this was subsequently re-designated as a post-medieval feature which had been filled by medieval hill wash due to the local topography (SSA24296; Williams, 2012a; SSA24297; Williams 2012b).

In 1998, work was carried out on Whitburn Street to attempt to find the north-west defences, and evidence of the walls were found in two of four trenches in what is now the car park of a shopping centre. While trench 'B' found a medieval stone wall, trench 'A' found a clay rampart approximately 1m in surviving height at a depth of 0.24m, and an accompanying outer ditch approximately 8m wide set some 3-5m from the rampart (SSA20914; Hannaford, 1998b). The ditch was not fully excavated, although some thirteenth-century pottery finds were found overlying the clay rampart.

In 1991, an evaluation trench in the grounds of St. Mary's church, adjacent to the modern church rectory and approximately 50m north of the ruined keep, located a ditch approximately 4m wide and 3m deep crossing the church grounds from east to west. The ditch was shown to be at least medieval but had been re-cut and then purposely infilled during the English Civil War and no definitive dating could be carried out. The positioning of the ditch suggests that it may have been part of the Æthelflædan defences; however, it was also possible that it may have separated the inner and outer baileys of the Norman castle (Shropshire HER 05627; Gifford and Partners Ltd., 1991, 34). In 2000, a geophysical survey was carried out near the castle in preparation for an excavation by Channel 4's *Time Team* searching for elements of the Norman castle. This located possible defensive features around the ruined tower. During this subsequent excavation, a 'large ditch' was located which *Time Team* determined to be that of the inner bailey (Shropshire HER 08727). This ditch, however, was not contiguous with that excavated during 1991, lying some 20-30m to the south of the 1991 ditch. Unfortunately, *Time Team* did not submit any of their data to the HER and the trenches were re-filled without full investigation, meaning that the dimensions of this ditch were not recorded.

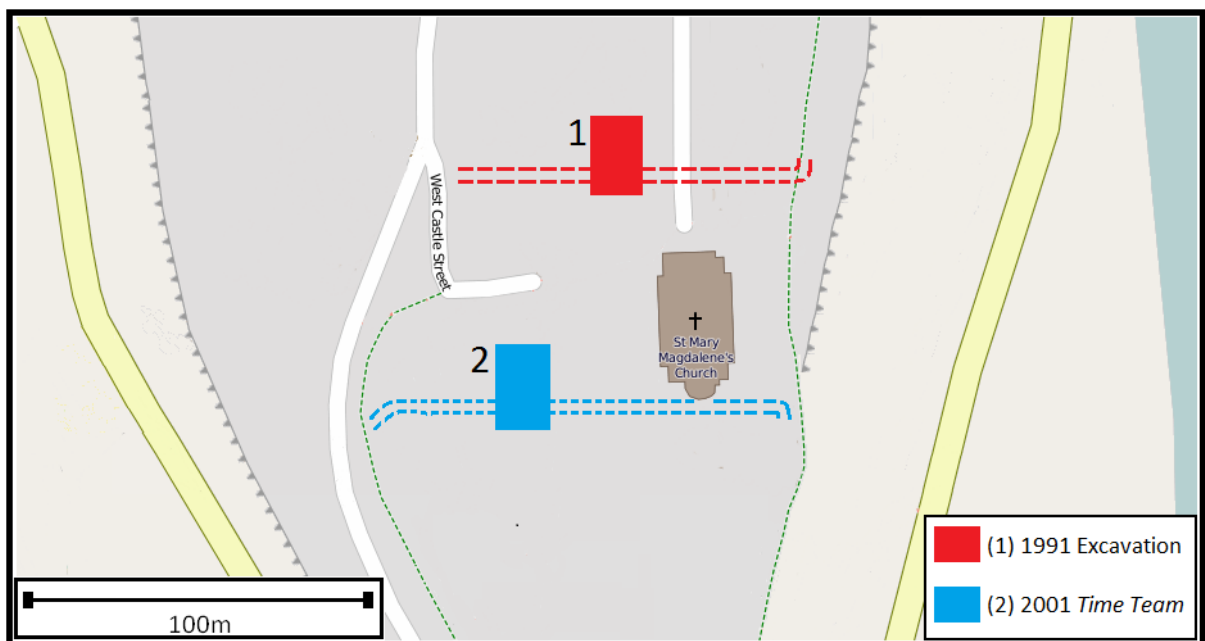


Figure 16: The probable paths of two alternative defensive ditches suggested by 1991 excavations (1) and Time Team (2). Base map: Ordnance Survey (2016), with annotations author's own based on Gifford and Partners Ltd. (1991).

For both ditches to be sequential with the twelfth-century castle would imply that the inner bailey was separated from the outer by two ditches in very close proximity, with St. Mary's Church lying between the two, and is thus unlikely. Although the current church building at St. Mary's dates from 1792, the site has been occupied by the



church since the twelfth century and may originally have been designed as the castle chapel, however it became a parish church and thus may have lain inside the outer bailey rather than the inner. The '*Time Team* ditch' lies immediately in front of the line of the curtain wall as extrapolated from the fragment attached to the extant tower ruins, and passes just to the south of St. Mary's, implying that this may indeed have been the defensive ditch of the inner bailey, with St. Mary's lying outside the inner defences. This in turn implies that the east-west trench found in the rectory gardens to the north was in fact the ditch of the tenth-century *burh*, and represented the southern extreme of the Anglo-Saxon defences.

If the rectory garden ditch located in 1991 is indeed that of Æthelflæd's *burh*, it almost certainly represents the southern perimeter of the defences. For it to have represented the northern defences of a *burh* built onto the promontory that would later define the inner bailey would render the *burh* particularly small, almost definitely so much so as to prohibit its housing a garrison of any effective size. The perimeter of the Anglo-Saxon 'castle' which Robert de Bellême repaired and used as the foundation of his own, therefore, is likely to be represented by the perimeter of the later castle's outer bailey, with the inner bailey and keep added onto the promontory, before the town expanded again to the north in the early thirteenth century, incorporating the previously extra-mural St. Leonard's Church within the northernmost extent of the new circuit. The junction of the bailey walls and the later town walls now lies under the Edwardian post office at the junction of West Castle Street and Bank Street, at which we can infer lay the northern defences of the *burh*. The area encompassed within these original defences is smaller than that of the later castle, but is still substantial. From the probable northern limits to the southern ditch is approximately 190m, with the promontory 170m across at its widest point.

The burghal circuit can thus be postulated to run east-west along the course of Bank Street in the north until it reaches what is now Castle Terrace, where elements of the castle wall are still extant (Shropshire HER 00371), where it turns south until the defensive ditch just before St. Mary Magdalene church, running east-west again across the church grounds before returning north along the western boundary of West Castle Street (see *Fig. 9* below). Altogether, this circuit encompasses approximately 2.8 hectares, which is comparable in area to the primary inner rampart at Eddisbury. From this we can infer that Bridgnorth may have held a smaller garrison, although this is to be expected since the *burh* appears to have been constructed in order to maintain control over the strategic river crossing, rather than to provide rapid reinforcements along the transport routes to the front lines of the Danelaw border in the Cheshire plain.

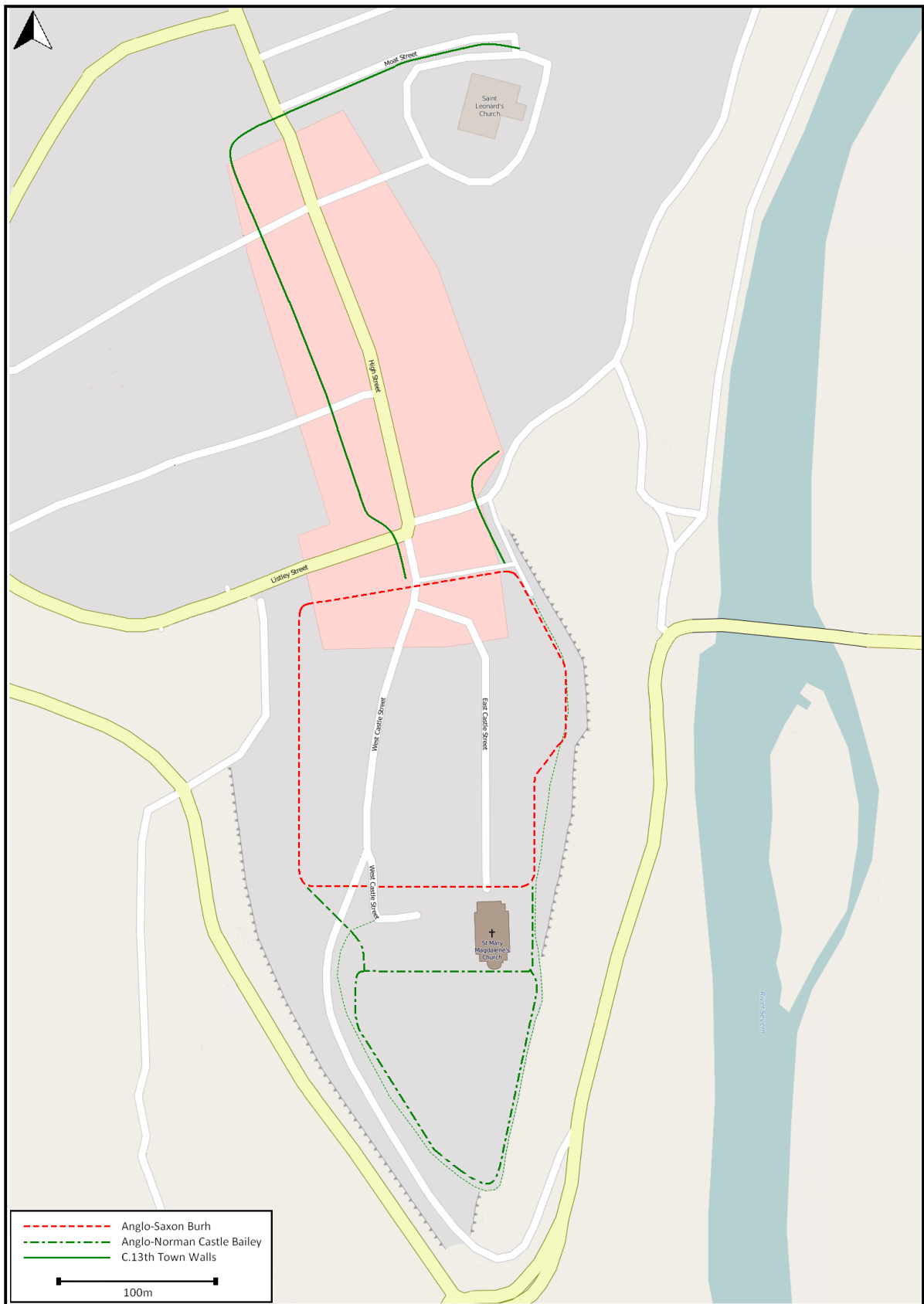


Figure 17: Probable defensive circuits at Bridgnorth, based on the Anglo-Saxon *burh* underlying the Anglo-Norman castle as described by John of Worcester, with southern limits delineated by the 1991 ditch. Base map: Ordnance Survey (2015).



The development and eventual fate of Anglo-Saxon Bridgnorth is as unclear as its defences. For Robert of Bellême to repair and rebuild defences there in 1101 implies that by the end of the eleventh century the defences had fallen into disrepair, so much so that Quatford rather than Bridgnorth was initially chosen as the site of the Norman castle, although this may also have been influenced by Quatford's position on the East bank of the Severn. Bridgnorth is not mentioned in *Domesday*, although the presence of eighth-century stonework at St. Leonard's church suggests that there may have been an Anglo-Saxon church on the site. No minting activity is carried out at Bridgnorth, and the lack of an intramural church suggests that, like Eddisbury, this was another predominantly military centre which either fell out of use as the Viking threat receded after the 940s. The regular minting carried out at Shrewsbury, only 30km away, suggests that provincial civic functions were carried out there rather than transferred to within the relatively remote fortress on the Severn.

## Chirbury

Of the Æthelflædan *burhs* still surviving or identifiable today, Chirbury is perhaps the most elusive and least investigated, having seen remarkably little by way of archaeological intervention or even interest, due to its relatively remote location, small population and lack of obvious historical features. Located in west Shropshire close to the Welsh border, Chirbury is situated in the Vale of Montgomery within a loop of the River Camlad, approximately 27km south west of Shrewsbury and 9.5km south east of Welshpool. Modern Chirbury is a small rural village with a population of fewer than 350, less than 600m across at its widest extent and encompassing approximately 8 hectares including large areas of open common and field, however in the tenth century Chirbury was likely a more significant site, and was fortified by Æthelflæd in 915 in the same year as Runcorn and *Weardbyrig* (ASC, MS.D, s.a.915, Whitelock, 1961, 64). Less than 3km to the west of Chirbury is Offa's Dyke, which marked the Mercian border with the kingdom of Powys, and the *burh* would have been only 18km south east of the tenth-century capital of Powys at the now-derelict site of Mathrafal Castle.

The Welsh border was considerably more peaceful during the tenth century than it had been during the construction of Offa's Dyke, and by the end of the ninth century Ealdorman Æthelred had prosecuted a series of campaigns establishing Mercian overlordship and forging alliances throughout the Welsh kingdoms that culminated in Welsh forces fighting alongside the Mercian army at the Battle of Buttington in 893 (ASC, MS.D, s.a.893, Whitelock, 1961, 56; Charles-Edwards, 2001, 103).

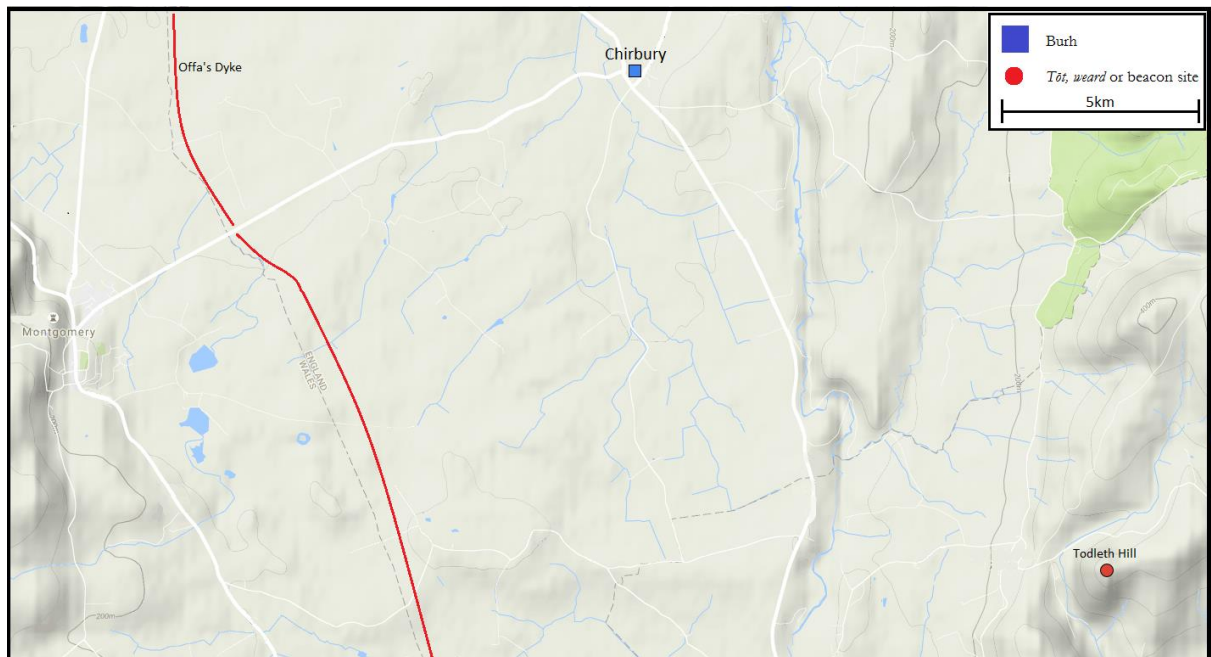


Figure 18: Chirbury in the environs of the Vale of Montgomery and Offa's Dyke. Base map, Google Maps (2015) with annotations author's own.

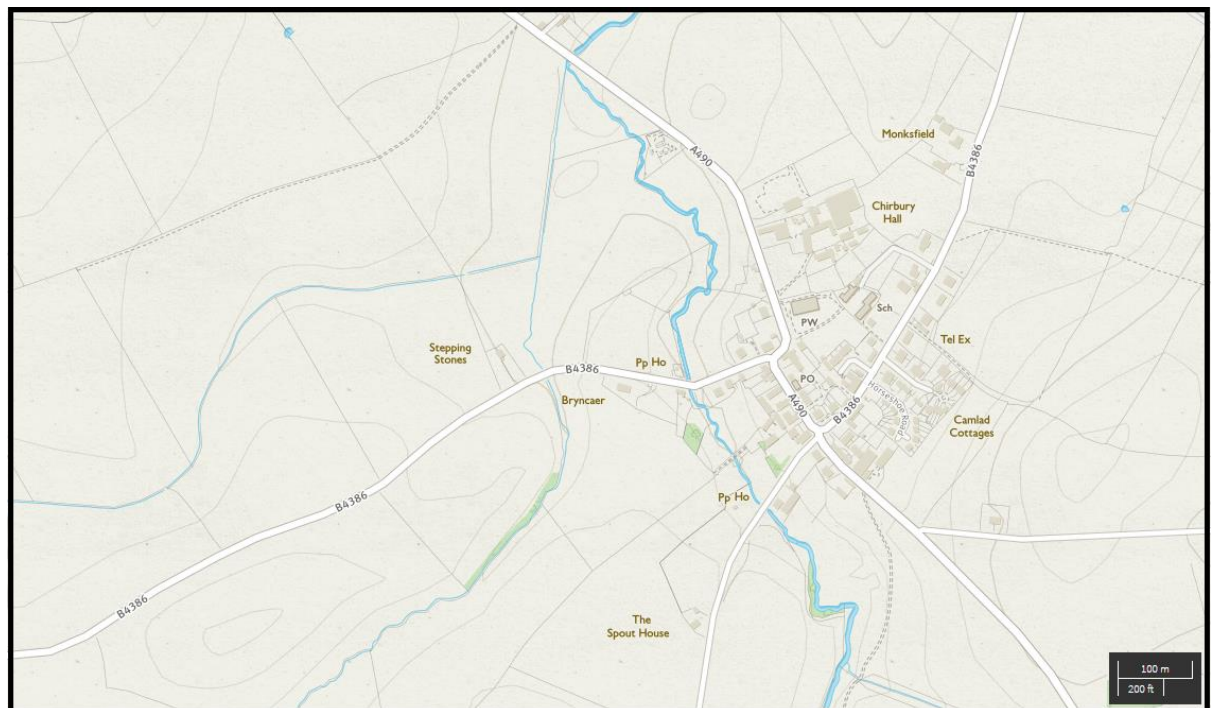


Figure 19: OS Map of modern Chirbury Village: Ordnance Survey (2015).

This overlordship had to be maintained, however, and Æthelflæd's punitive expedition against *Brecenanmere* in 916 is a prime illustration of the Mercian need to maintain a military presence on the border (ASC, MS.D, s.a.916, Whitelock, 1961, 63; Charles-Edwards, 2001, 104-105). The change in political stance towards the Welsh kingdoms combined with the necessity of vigilance to maintain their allegiance is likely reflected in Chirbury's isolation; unlike the proliferation of *burhs* and defensive sites across the

Cheshire plain and the Severn and Trent valleys, the western frontier of Mercia is sparsely fortified, with Chirbury and Hereford the only known fortified sites.

Although Hereford was not a *burh* as recorded in the *Anglo-Saxon Chronicle*, it was nonetheless an important Mercian site having been an episcopal see since the late seventh century, and boasted a substantial level of fortification, and it is likely from here that Æthelflæd launched the raid on *Brecenanmere* (Bassett, 2008, 180-185). With its proximity to Mathrafal and its situation adjacent to Offa's Dyke, the militarisation of Chirbury would not only have presented another hub for the Mercian defence of the border, but moreover would have provided a convenient location for the mobilisation of Mercian forces for any expeditions into Wales, or indeed a rallying point for Welsh forces from Powys which were intending to ally with the English as in 893.

At the time of its fortification, Chirbury was most likely already a small Anglo-Saxon settlement. Recorded in the *Anglo-Saxon Chronicle* as *Cyricbyrig*, its name is thought to refer to at least one church enclosed within its defences, although this may also have been founded simultaneously with the *burh* in a manner similar to St. Bertelin's Church in Stafford (ASC, MS.D, s.a.915, Whitelock, 1961, 64; Ekwall, 1985, 105; Carver, 2010b, 136). The current Church of St. Michael in Chirbury is a thirteenth-century construction once part of the Chirbury Priory founded in 1190, although thought to have been constructed over an original Anglo-Saxon minster (NMR: SO 29 NE 2). First surveyed and excavated in 1911 and again in 1973, a series of small excavations around the Church of St. Martin between 2001 and 2004 aimed to shed more light on the extent of Chirbury Priory and probe for a postulated an underlying Anglo-Saxon foundation.

Excavation in 2003 found a foundation wall heavily truncated by robbing of the stonework and adjacent agricultural and construction activity which may have been originally Anglo-Saxon, but found no datable evidence that could confirm this (Shropshire HER 02570). A series of 'medieval finds' including pottery and floor tiles were also found in the area of the priory, however the nature of these finds have not been disclosed, and thus nothing indicative of prior Anglo-Saxon occupation of Chirbury can be conclusively proved. Further results from these excavations have been neither published nor submitted to the HER (ibid. ESA5998). Further archaeological investigations at Chirbury have searched for the Anglo-Saxon burghal defences, although these have been confined to one site: an area of defensive earthworks on the western edge of the village in an area known colloquially as Castle Field.

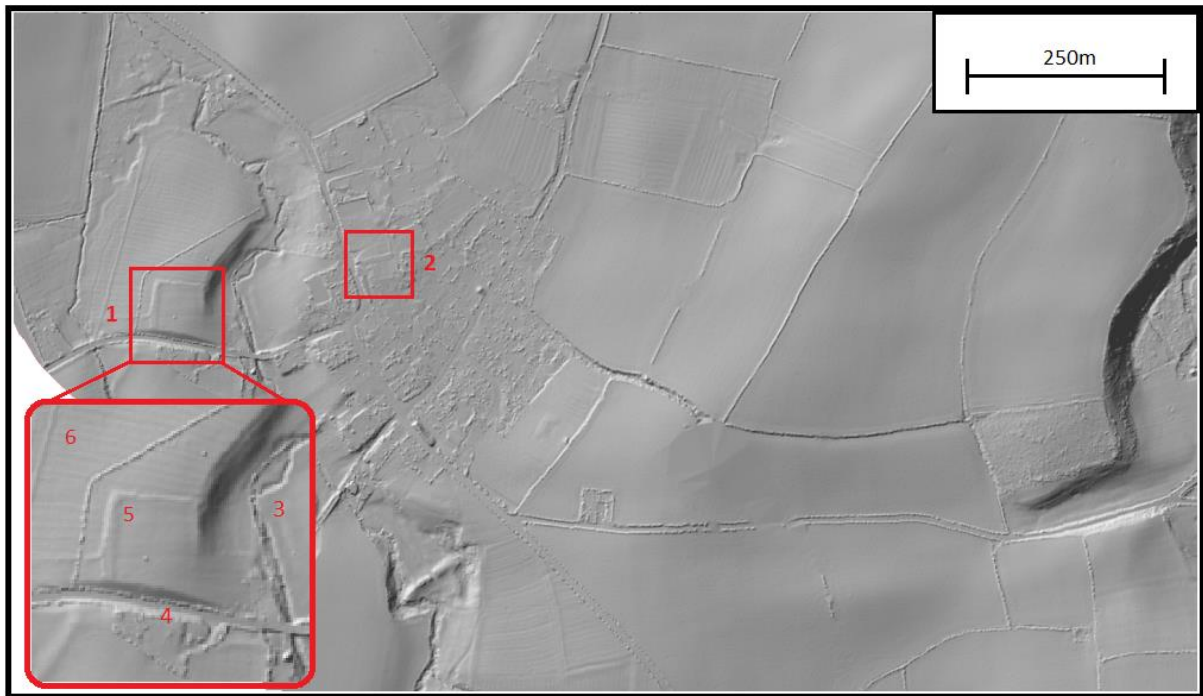


Figure 20: Digital Terrain Model of Chirbury showing the area of the outer ringwork (1) and the site of St. Martin's Church and Chirbury Priory (2). Enlarged area shows Castle Field, with River Camlad (3), road cutting (4), surviving ramparts (5) and medieval field system (6). LIDAR Data courtesy of AOC Archaeology Group/ The Environment Agency, with annotations the author's own (SSA24735)

The Castle Field site sits outside the boundary of the modern village, 260m west of St. Michael's Church, on a low spur between two streams and immediately above the Montgomery road, and has been the focus of two archaeological interventions at Chirbury as well as multiple observations and surveys. The focus of these investigations is visible in the DTM (*Fig.20*, area 1 and enlargement above). Due to its rural location, Chirbury has received little attention from LIDAR surveys, and even Environment Agency data is only available in a 2m resolution. However, even at this scale, the Castle Field earthworks are visible. The crest of the ridge between the streams is dominated by a square 'ringwork', reasonably well preserved on two sides and partially on a third, which overlooks both the road and the village (Shropshire HER 00498). Known colloquially as Chirbury Castle, the Castle Field ringwork has long been the focus of attempts to trace the burghal defences. G.T. Clark's 1887 survey of 'moated mounds or *burhs*' in Shropshire stated that 'although the *burh* is now destroyed its site is clear' and noted the relative proximity of the ringwork to the church (Clark, 1887, 210). The rectangular nature of the remains, Clark asserted, indicated that the site was clearly a Roman encampment which had been re-used for defence during the 'Danish wars' (*ibid.*). Castle field was first excavated in 1953 (ESA504) and again in 1958 by F.T. Wainwright (ESA4724), observed by Shropshire County Council Archaeological Service in 1976 (ESA505) and surveyed in 1999-2000 as part of the Bro Trefaldwyn historic landscape survey carried out by Clwyd-Powys Archaeological Trust (ESA5524).

The Castle Field ringwork, whilst relatively well preserved, is extremely limited by its location. The ground drops away gently to both the west and north towards a stream and stream junction respectively, and it is on these faces of the enclosure that its structure is most intact. On the east side, the adjacent stream passes much closer to the site resulting in a steep drop. A small section of earthwork remains here in the north-west corner, however much of the earthwork has either collapsed into the valley or was never constructed to begin with. The ground rises slightly to the south, however the southern edge of the ringwork has been truncated by the deeply cut route of the modern road to Montgomery, which crosses Offa's Dyke 2.5km to the west. The route of the current road dates to 1768, however the original trackway it replaced likely followed the same path when leaving the village (CPAT HLCA 1074), and with no evidence of continuation to the south of the road, it can be inferred that the enclosure did indeed originally end at the roadway, leaving it roughly square in shape. Extending just less than 60m along both axes, the ringwork encloses approximately 0.36 hectares, which would render it extremely small as a *burh* even on this 'quiet' frontier, and casts immediate aspersions on Clark's statement that this was 'clearly' the Æthelflædan *burh*, even more so than its hypothetical presence here rendering the Anglo-Saxon church under St. Martin's not only extramural, but also separated from the defences by a stream and a steep valley. Nonetheless, the enclosure in Castle Field was defensive in nature, and may have been linked with the burghal defences.

The defences of Castle Field are still visible as earthworks on the north and west sides of the ringwork enclosure. They were investigated during the 1958 excavations, which also uncovered the partial defensive circuit on the east side which is now also visible through LIDAR (see *Fig.20*). The defences consist of a single earthen rampart surrounded by an outer ditch, the excavation of which most likely provided the material for the rampart. The interior of the enclosure has been levelled, and stands higher than the surrounding landscape, to the extent that the earthworks are of different external, but near uniform internal heights. On the western side, the bank is approximately 10m wide at the base, and stands to a height of 1.3m externally and 0.4m internally. The bank is smaller at the north side, standing 5m wide, 0.9m high externally and again 0.4m high internally (Wainwright, 1960, 1-2; English Heritage, 2001; Britnell and Martin, 2000). The outer ditch here has been infilled by subsequent cultivation of the surrounding farmland, so that only a slight depression along a section of the northern side is still visible, but still survives as a buried feature and was estimated to be approximately 8m wide on both the north and west sides (*Ibid.*).

At the northern end of the east side defences (*Fig.20*, area 5), the rampart survives as a low bank roughly 5m wide which has been diminished in size either through collapse

of the stream valley immediately to the east or through its use as a plough headland during cultivation on the site. The southern extent of the rampart on this side, where the stream valley slopes more gently, has been levelled by cultivation and is no longer visible, but was revealed through excavation, consisting of the same rampart and outer ditch, both approximately 8m wide (Ibid.). The southern face of the enclosure is now lost to the construction of the adjacent road (*Fig.20*, area 4); however, the defences here can be expected to have been similar to those of the rest of the ringwork, with a bank between 5-10m wide and up to 1.5m high. The entrance to the enclosure appears to have been through a passageway cut through the western bank some 4m wide, although no evidence of any gatehouse or additional fortification has been found, and approached by a raised causeway which appears to have been a later addition (Shropshire HER 00498).

No evidence of a palisade was found in the ramparts, nor traces of any other internal defensive features throughout the rest of the ringwork. Whether as a result of cultivation or a lack of historical occupation of the site, the interior of the ringwork was found to be entirely featureless, and no evidence of structures, pottery or indeed any dateable evidence was found. The rescheduling of the ringwork in 2001 noted that the earthworks were either incomplete, or likely to have not been used, and while defensive, was unlikely to represent the remains of the Anglo-Saxon *burh*. This was far more likely to lie under the village centre itself, in keeping with other West Mercian *burhs*, likely arranged on an axis parallel with the village's roads (Britnell and Martin, 2000, 75; see *Fig.19*). In absence of other dating evidence, the ringwork is suggested to be later than the *burh* but still contemporary.

The Castle Field ringwork is an unlikely site for the *burh* at Chirbury, yet clearly represents a defensive form of some kind. The site is unlikely to be later medieval, as although the Vale of Montgomery was fortified post-Conquest, this was in the form of several nearby mottes with which Chirbury shares no similarities, and *Domesday* references no castle at the site (Chitty, 1950, 83-90). It is possible the Castle Field site represents an outwork added to the *burh* to provide greater surveillance over the route from Offa's Dyke which was never completed due to the demilitarisation which accompanied the abatement of the Viking threat in the later tenth century, which saw sites such as Eddisbury similarly abandoned. It is, however, also possible that the ringwork was constructed during the mid-eleventh century, when Shropshire was threatened by the raiding of the Welsh King Gryffudd in the 1050s, or could even be a later medieval siege castle (ASC, MS.C and D, s.a.1052-1056, Whitelock, 1961, 127-132).



No effort has yet been made to locate the route that the burghal defences around Chirbury village might have taken, or even to map their hypothetical extent, yet some predictions can be made. St. Martin's Church and the site of Chirbury Priory is currently in the north-west corner of the village; however, if this is also the site of the Anglo-Saxon minster, evidence from Stafford, Hereford, Tamworth and other sites suggests that it should stand relatively close to the centre of a rectilinear enclosure. To the north and west of St. Martin's churchyard, the ground drops away leaving a raised corner which may represent the likely boundaries of the *burh* in these areas, particularly on the western side facing the stream separating the village from the Castle Field site. A hypothetical path for the burghal defences therefore may run north-west to south east along the east side of the A490 Welshpool road, turning north-east along the route of the modern B4386 until the edge of the current village, with this pattern mirrored on the north-western and north-eastern faces, forming a rectilinear enclosure of approximately 3 hectares with the probable site of the Anglo-Saxon minster church in the centre (see Fig.21, below).

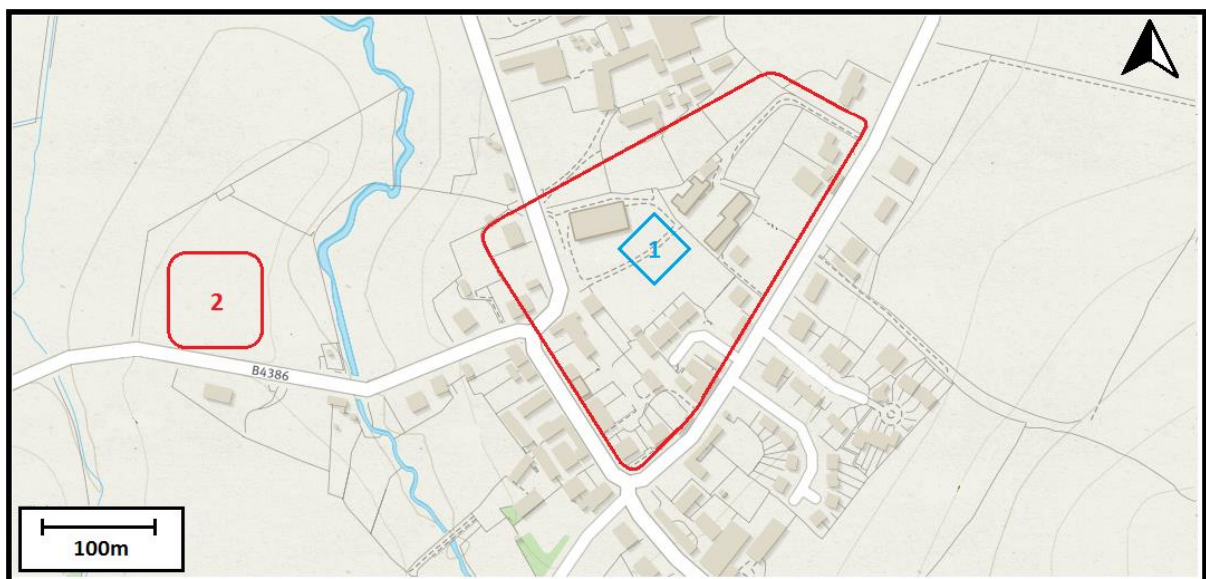


Figure 21: Hypothetical defensive circuit at Chirbury including Anglo-Saxon Minster (1) and Castle Field Ringwork (2). Base map, Ordnance Survey (2015) with annotations author's own.

Chirbury's evolution is different from that of Eddisbury and Bridgnorth. Although the *burh* never developed into a borough and gained an urban aspect, the site was not abandoned, either because it was a pre-existing settlement that had been militarised or the church founded there led to a degree of settlement. Listed in *Domesday* as *Cireberie*, Chirbury seems to have escaped the devastation wrought either by Gruffydd's raiding or the Norman Conquest which had led to several nearby estates such as Thornbury being listed as waste in 1066, and some such as Ashton still in 1086, and

was a relatively thriving village with 23 households, two churches, and ten plough teams (Cox *et al.*, 1989, 26-30). That Chirbury did not develop beyond a village is probably due to its relatively remote location and the dispersed population of Western Mercia more than its role as was the case at Eddisbury or Bridgnorth. Although Chirbury provided a useful border post and staging area for the Mercians, it is unlikely that a large garrison was often maintained on a quieter frontier, and the settlement's small size did not warrant the establishment of civic functions separate from those which were already developing at Shrewsbury to the north east. However, when the maintenance of the burghal network wound down as the Viking threat passed, there would have been little reason for the 'civilian' population of the village to abandon their homes and fields.

## Discussion and Conclusion

Because the *burhs* at Eddisbury and Bridgnorth did not develop an urban function, or Chirbury grow beyond a village, it does not follow that these were 'failed' sites. Nor should the disparity in design between *burhs* these *burhs* and others at, say, Stafford or Chester, suggest that these *burhs* were 'disparate and non-contemporary'. Rather, these *burhs* represent a series of royally managed sites purposely developed for specific defence criteria, with their lack of governmental civic functions explained through West Mercia's smaller and more dispersed population, allowing for the concentration of these functions in major sites such as Chester and Tamworth. At Eddisbury, in particular, where the level of re-fortification carried out by Æthelflæd is most visible, it can be seen that these were not convenient sites re-occupied on an ad-hoc basis but rather purposely chosen to fulfil specific roles: namely, to provide landscape control along the Roman roads of the Cheshire plain and provide support to the *burhs* at Chester and Runcorn, to control a strategically important river crossing that was a known route for Viking forces, and to provide oversight of the Welsh frontier and allow for the greater projection of influence and control over satellite kingdoms.

Mercia's more sporadic population distribution may indeed underpin the very nature of these sites. All three provide a garrison presence at a strategically important frontier or travel node which was in an otherwise isolated or sparsely populated area, and thus unable to necessarily raise the requisite local forces for defence in the event of attack. It is thus arguable that the main reason these *burhs* did not develop the urban functions of a borough is that they were sited and maintained so effectively as to make their original purpose eventually obsolete.



### III: Communications and Visual Networks in Landscape Control

The hero Beowulf, in the eponymous epic, is greeted upon landing on the coast of the Scyldings by the *weard Scildinga/ se þe holm-clifu healdan scolde* [the sentinel of the Scyldings who kept watch over the sea], charged with preventing any enemy from doing harm in the land of the Danes (Beowulf 229-230, Fulk (trans. and ed.), 2010, 100-101). At first approach, the Old English heroic epic of Beowulf has very little to do with the defence of tenth-century England and the burghal network, yet the language of Beowulf is just one of many sources suggestive of a layer of civil defence often overlooked in the study of the English *burhs*, namely communications and control of the landscape along the frontiers. In exploring the concept of landscapes of defence, Baker and Brookes espoused the theory, also supported by Williams, that burghal sites in Wessex functioned as hubs of regional and mutually supporting defensive networks and as supply depots for the fyrd which allowed them control of roads, rivers and the coast (Baker and Brookes, 2013, 25; 2015, 216-234; Williams, 2013, 131). If we apply the 'systems thinking' suggested by Baker and Brookes' *Beyond the Burghal Hidage* then it becomes apparent that the *burhs* could not have operated in isolation; even if they were mere refuges then a system would have to have existed in order to warn the populace to take refuge within its defences, and indeed to warn the defenders to expect such an influx, for the strongest defences would be rendered meaningless if a fleeing population arrived to find the gates already barred or the garrison scattered and unarmed (Baker and Brookes, 2011, 11). If the Mercian *burhs* similarly functioned as central hubs of a more active civil defence network then a complex system of communication and control would likewise be necessary.

That the prosecution of war was 'intimately linked to the landscape of military mobility' (Baker and Brookes, 2013, 140) implies that not only was control of transport loci intrinsic to successful strategy, but also that victory was dependent on being able to use those loci and transport links in order to be able to respond promptly and effectively to threats and raids. The best armed and supplied garrison in the safest stronghold on the swiftest river or most direct road is rendered entirely useless if it is not aware of the enemy and his movements, and the most determined of delaying actions is in vain if the promised relief force fails to materialise. Thus the effective and rapid delivery of intelligence on the disposition and movement of the enemy is essential. A garrison force is not an army on the march which can send scouts roving ahead in order to find the enemy and report back, but one which requires a permanent presence along its frontiers in order to stand watch, and this implies the presence of an organised infrastructure of surveillance and communication as part of an integrated network of defence (Hill and Sharp, 1997, 157).

It is at this juncture that we must consider the form such a defensive infrastructure would take, and how it would be maintained and manned. The Scylding sentry in *Beowulf* has a horse upon which he is presumably meant ride to raise the alarm, and upon greeting the heroes tells them that he has long been stationed on the frontier to keep a watch on the sea so that no enemy fleet could do harm there [*lc hwile wæs/ ende-sæta, æg-wearde heold, / þe on land Dena laðra næng/ mid scip-herge sceoðpan ne meahte*] (*Beowulf* 240-243, Fulk, 2010, 102-103). Of course, *Beowulf* should not be taken as a detailed exposition of tenth-century English military procedure, but it nonetheless suggests that as potentially early as the eighth century there was already a concept of a state-organised permanent watch on the borders and the coast (Fulk, 2010, xiv).

A 977 charter of Edward the Martyr granting land to his ealdorman Æthelweard in Cornwall frees the land of all dues except the maintenance of fortress work, the *fyrð* and the provision of men for the *Vigiliis Marinis* and is much more authoritative evidence that, at least by the end of the Tenth Century, the state mandated a network of surveillance and watch-standing as warning against raiding and invasion (S832; Hill and Sharp, 1997, 159; Baker and Brookes, 2014). In reality, any defence infrastructure would have to have been more substantial than *Beowulf's* lone sentry and his horse. In order to function effectively, any watch-post would need to be able to send its message as quickly and safely as possible and would also have required multiple personnel capable of both standing watch and sending information. One pertinent solution to these requirements is a beacon chain.

### Connecting to the Network: Communications and Beacons

The design and function of a beacon chain is clear; the use of high vantage points to send a simple pre-arranged message rapidly over long distances both faster and more reliably than a human messenger. Importantly, these are simple messages designed to initiate an immediate and planned response, the visual predecessor of an air-raid siren or a fire alarm, albeit on a much greater scale (Brookes, 2013, 47). The lighting of a beacon would be a signal for the local population to immediately seek refuge, and for the local *fyrð* to muster. Presumably this alert could then be supplemented with further information delivered by messengers or even, as Brookes suggests, an early semaphore system (Ibid. 48; Baker and Brookes, 2014, 37-58). The Romans in Britain had already made use of a similar visual messaging system between outposts to supplement the network of relay stations and horseback messengers between forts, evidence of which still remains in Cornwall (Baskott, 2010, 2-10). As the message can travel faster through visual lines than a person, the system immediately allows for

defenders to muster at important junctions, and provides an important level of control and surveillance over the landscape, watching roads and rivers and reporting movements thereupon ahead of those being observed.

### An Anglo-Saxon Beacon Chain?

Evidence of Anglo-Saxon beacons was, according to Hill and Sharp in 1997, 'slim, and in some cases suspect', and to a physical extent this is still somewhat the case, but discoveries within the past two decades have shed light on a potentially widespread network of Anglo-Saxon signalling beacons throughout the country (Hill and Sharp, 1997, 157). Although Frank Stenton claimed that there was 'no tradition' of beacons in Anglo-Saxon England, upon inspection this becomes blatantly untrue, and while the physical evidence of this system may have been slim, circumstantial and historical evidence certainly suggest heavily that beacons were part of the Anglo-Saxon defensive infrastructure (Stenton, 1971, 592).

In 1006, the *Anglo-Saxon Chronicle* tells of a Viking army who 'betook themselves to the entertainment waiting them...and always they observed their ancient customs, lighting their beacons as they went' (*Anglo-Saxon Chronicle*, MS.C, s.a.1006, Whitelock (ed.), 1962, 88). This biting dark humour is a rare glimpse of the human chroniclers behind the *Anglo-Saxon Chronicle*, and although it clearly condemns the Viking proclivity for burning everything in their path, it nonetheless suggests an underlying assumption that the reader would be familiar with the term *here-beacen* and the practice of lighting beacons to warn of a Viking attack. This was certainly the case in the Carolingian kingdoms, where in 841, Charles the Bald prepared for the Battle of Fontenoy against the Lotharingians and Aquitanians through means which have clear parallels with English defences against the Vikings:

'[He] ordered some men to guard Paris and Meulan, and others to take up positions wherever he knew there were fords and ferries. He himself pitched camp in a central position across from St. Cloud so he could, if necessary, prevent Lothair [I of Italy] from crossing, or help his men if Lothair should plan to attack them anywhere. To make it easy to learn where help was needed, he arranged signs and guards at critical points, as is usually done on the coast' (Nithard, *Histories of the Sons of Louis the Pious*, s.a.841 in Scholz and Rogers (trans. and ed.), 1970, 159).

Such an incidental reference to a system of maritime defence is significant here, and implies an assumed familiarity in Nithard's readership with an established system of coastal signals. Such a system is known to have been established by Charlemagne to

warn of Danish raids in the English Channel, and what is significant here is that these same methods have been reproduced inland to defend against a land-based threat instead of a landing. The system of distributed holding forces at important travel nodes connected by watch-stations, sentries and signals to an implied central relief force is remarkable in its similarity to the ideas of defence in depth and mobile warfare postulated by Baker, Brookes *et al.* For such ideas to spread across the channel or to have been adopted simultaneously is hardly unlikely (Loyn and Percival (eds.), 1975, 16). Indeed, concepts such as fortified bridges had already crossed the channel, Alfred likely basing river defences such as those built on the Thames in 879-880 on similar fortified bridges built on the Seine by Charles the Bald, and possibly seen by Alfred on his visit to Charles' court in 856 (Haslam, 2006, 125-126; Keynes and Lapidge, 1983, 14).

A 977 charter of Edward the Martyr grants land at St Keverne in Cornwall to his *comes* Æthelweard, free of all duties except the customary *trimoda necessitas*, however in this case the familiar clause of bridge and road maintenance is replaced by the need to maintain *vigiliis marinis* to stand watch over the coast (S832). Similarly, a 998 charter of Æthelred II allowing the conversion of Sherborne cathedral into a Benedictine house states that the land is free of all dues *exceptis que omnibus communia sunt*, and that the brothers are not liable to construct beacons [*in rogi constructione*] since it is in their best interests to have already done so (S895). *Rogus* had originally been translated as a 'castle-mound' throwing the validity of this charter into question, but has since been translated to mean a pile of wood rather than earth, implying instead the construction of a beacon (Latham, 1965, 411; Hill and Sharp, 1997, 164). Sherborne itself is only a few miles east of Yeovil and thirty miles from the coast, so the presence of a beacon here suggests it was part of a network far more developed than just a coastal chain. That the abbey was made exempt from providing the service due to its own reliance on the beacon suggests that the beacon system was both in place long before this charter and also in some way organised on a state rather than private level, perhaps as part of the defensive duties of the local thegn or *ealdorman*.

The use of beacons as defensive and rallying signals certainly can be inferred to have spread from England during the period. Haakon Haraldsson 'the Good' of Norway was known as *Adalsteinfostre* from his childhood spent at Æthelstan's court in England, and was given English support in claiming his throne from his half-brother Erik Bloodaxe (Gjerset, 1927, 164-166). According to *The Saga of Hakon the Good* in the *Heimskringla*, his reform of Norway's legal and military system contained 'the order that beacons should be erected on the hills, so that every man could see from one to the other; and it is told that a war-signal could thus be given in seven days, from the most

southerly beacon to the most northerly Thing-seat in Halogaland' (Snorri Sturlason, *Heimskringla*, Hollander (trans.), 1964, 113; Hill and Sharp, 1997). It can be strongly inferred that this establishment was based on a successful scheme witnessed during Haakon's time in England under Æthelstan. Again, the use of mountain-top beacons suggests that these systems were not reserved merely for coastal defence.

The Anglo-Saxon civil defence network was a subject of intense interest during the late sixteenth century. The Elizabethan antiquarian and scholar William Lambarde wrote in his *Perambulation of Kent* an 'assesse of suche particular Watche and Warde' of a system of beacons stretching from the coast at Walland Marsh, which he claimed was a precedent for the 'watchful endeavour' of the contemporary government's defensive beacons (Lambarde, 1576, 100). These beacons are stated to have been used during the reign of Edward III having previously been updated from the wood stacks and piles as which it is implied they have existed since the 'ancient histories... of our ancestors' (ibid.). In 1588, Elizabeth I's Captain of Defences Sir Roger Twysden followed Lambarde's counsel and prepared secondary wooden beacons throughout the country should the pitch beacons built to warn of Spanish invasion run out of fuel (Thompson, 1926, p72).

The Elizabethan fondness for beacons was such that it has since clouded our ability to assess the true extent of Anglo-Saxon signalling networks. While the term *here-beacen* used in the *Anglo-Saxon Chronicle* was apparently widely understood as an 'army beacon', there is no Old English or pre-Conquest place-name known to contain the element '*beacen*', but a proliferation of Elizabethan 'beacon' place-names confuses a toponymic approach since many, but not all, were established on prior Anglo-Saxon sites (Hill and Sharp, 1997, 157). In 1586, for example, Lord Cobham was congratulated by the Privy Council on his successful re-establishment of beacon defences in the Isle of Sheppey and Romney Marsh based on the locations of 'ancient sea-watches' provided by Sir Thomas Scott and, once again, William Lambarde (*Acts of the Privy Council XVII*, 246; Warnicke, 1973, 57). Alternative Old English toponyms indicative of watching and guarding, *tōt* or *weard* respectively, do survive and provide a promising avenue with which to interrogate the landscape (see below).

Hill and Sharp's 1997 article on Anglo-Saxon beacons was one of the first 'modern' works to consider the existence of such a network in England and the extent to which the Elizabethan system was built upon prior foundations, and mapped Elizabethan Armada defence beacons in Hampshire at sites containing Anglo-Saxon 'defensive' toponymic elements. The results, shown below, showed a distinct network stretching between multiple sites along complex, and often overlapping, lines of communication.

## Identifying a Potential Beacon Network:

As Hill and Sharp's work in identifying a potential beacon network in Hampshire suggests, the most useful approaches to assessing Anglo-Saxon beacon networks will be through toponymy, and also through landscape 'field archaeology'. The term 'field archaeology' was coined in 1953 by O.G.S. Crawford following his experiences with the then-rapidly developing field of aerial photography, and was stated to 'focus on the *plan*, the overall map, rather than the artefacts and the tourist attractions' (Crawford, 1953, 211-212). Crawford's ideas are particularly relevant in this instance since beacon sites, by their very nature, leave very little physical trace on the landscape, especially in cases where the land is subject to regular agriculture and re-use, and the largely accidental nature of archaeological survival can be expected to have been particularly unkind to the predominantly wooden structures which would have comprised the signal network (Ibid. 51; Clegg Hyer, 2011, 3). If these structures were constructed on top of mounds, however, it is likely that these may have shown greater survivability. Rather than focus on the minutiae of the sites themselves, therefore, it is more effective to focus on the landscape itself to investigate where a signalling network is likely to have been located.

Foremost in mind during the imposition of any 'military landscape' would have been the agenda of establishing dominance and control over movement, and because of this, the siting of beacon sites would be driven not so much by accessibility and transport as in the main burghal sites, but by inter-visibility (Woodward, 2004, 124; Brookes, 2013, 46; Baker and Brookes, 2014; 2015, 216-234). Brookes' work on beacons, drawing on Hill and Sharp's map in particular (*Fig. 22*, below), suggests that beacon chains may have worked on a tiered system, with multiple inter-visible beacons able to establish control over a wide area of the countryside rather than a simple long-range line of communication (Brookes, 2013, 47). A network of local beacons would allow for a defending fyrd to far more effectively track and respond to a mobile threat than a simple warning message that merely alerted them that a threat existed. The map does however suggest that away from the immediate frontier, a longer-range series of beacons was also in effect, presumably in place to carry warnings to neighbouring burhs or, as the Saga of Haakon the Good suggests was possible, to the entire country.

In 2002, Gower's largely toponymic work searching for a potential signalling system between London and Chichester suggested a system of coastal beacons between Steadham, Chichester and Hurstpierpoint feeding into a long-range network leading up the Roman Stane Street to London (Gower, 2002, 59). Gower's investigation began as

a toponymic survey of sites featuring the Old English place-name element *tōt*, and found not only that there was a linear and regular distribution of these sites along the route of the Roman road, but also that this branched into smaller networks when reaching the coast. Sites were distributed in roughly a straight line, but made small diversions to take elements of the landscape into account. In this instance, average signalling distance appeared to be 6-7km between beacons (Ibid. 60-61). Few of the sites lay outside of this range, and even these were only one or two kilometres removed in order to be placed in more visibly accessible locations.

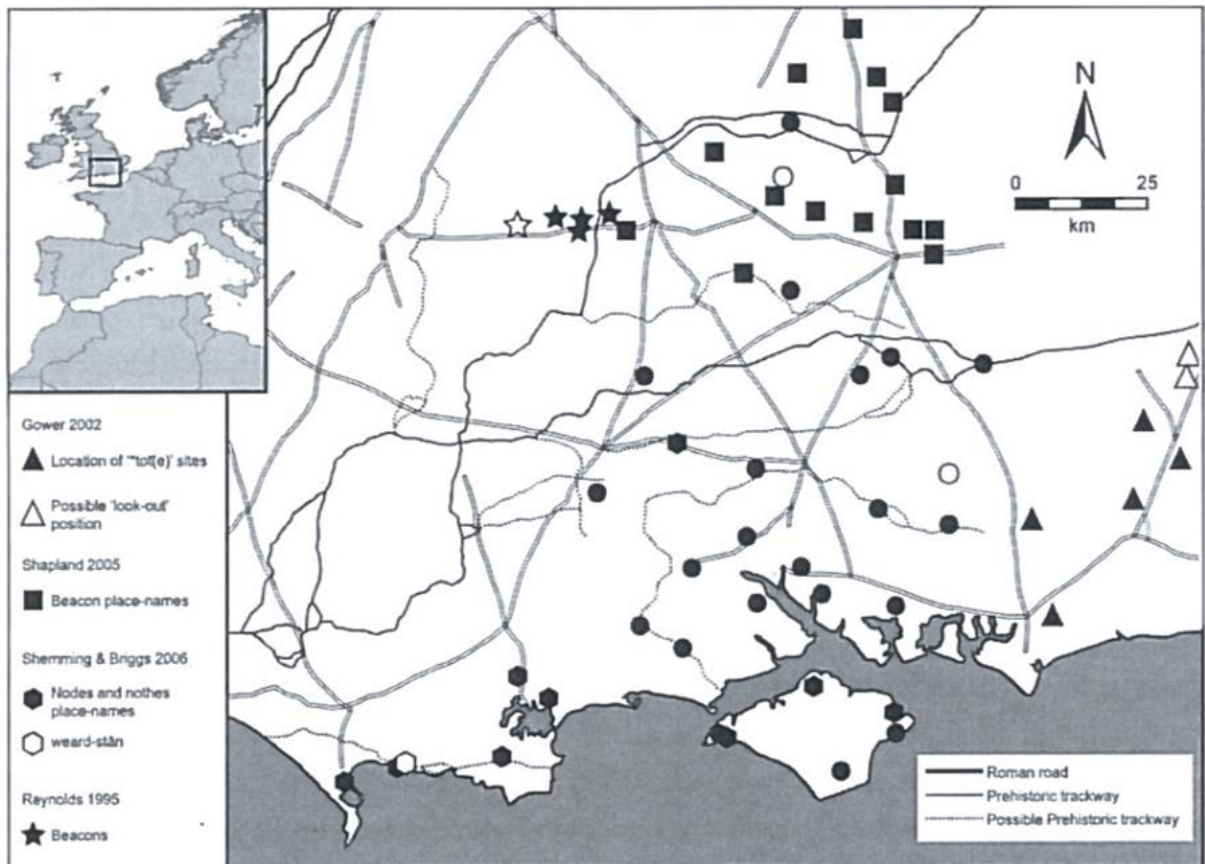


Figure 22: Composite map of potential South Coast beacon sites (Brookes, 2013)

Despite the Elizabethans' enthusiasm for naming beacon sites, what is clear from both Gower and Hill and Sharp's work is that by far the most effective means of identifying a putative signalling network is through a toponymic approach. There may have been no pre-Conquest place name element including beacen, but the element *tōt* meaning 'look-out place' appears to have been adopted readily in its stead, along with *weard*, meaning to ward, watch or guard (Dodgson, 1981, 369 and 381). The *endsæta*, literally frontier-watcher, of Beowulf does not appear to have influenced any place-names, however. Many of these toponyms can be identified in surviving charters, usually in conjunction with the elements *beorg*, *hyll* or *dūn*, meaning hill, and *setl* or *earn*, meaning house or post. For example, charters of Æthelstan in 928 and 930 refer to a *peardan hyll* and *peardsetl* at Odstock, Wiltshire and Sandford, Devon respectively

(S400 and S405). A charter of Edward the Elder confirming a grant of land at Highclere in Hampshire includes in its boundary clause a *peardsetl*, later referred to in a 959 charter of Edgar as a *pearð seð*, and the site of a later Elizabethan beacon identified by Hill and Sharp (S383 and S680; Hill and Sharp, 1997, 159).

These toponymic elements survive in a variety of forms extant today. Just as Hill and Sharp's 1997 map of a Hampshire beacon network was based on *weard* sites, so Gower's 2002 map of a network south of London is built on *tōt* sites with eponyms ranging from Tot Hill to variants such as Tooting and Toat Farm (Gower, 2002, 60-61). Both Bristol and London have a Totterdown: in London on Stane Street south of Southwark and in Bristol to the South-East of the city on the Bath Road (Ibid.). This name contains the elements *tōt*, *earn* and *dūn*, and in both cases Totterdown is situated on the main road leading to or from a burh site (Ibid.)

## Development and Archaeology of Beacon Sites

Although toponymic evidence is a vital starting point for the identification of a potential beacon network, it can provide only an indication of a site's purpose. Specific topographical and archaeological features are important in the identification of potential beacon sites, as not all *tōt* or *weard* sites are likely to have been part of a visual communications network. Given the Roman use of beacons as well as the propagation of defensive beacons during the Elizabethan period and afterwards, it is also important to distinguish that any beacon sites identified would have been in use during the Tenth Century and are not merely later constructions or Roman sites that were not subject to Anglo-Saxon re-use. Of paramount importance to any beacon site is its use of the topography to provide commanding lines of sight over the nearby landscape and to connect with other sites on the network, and this is a unifying feature of to be expected at any potential beacon site. Gower's work on beacons in Sussex in particular observes how *tōt* sites deviate from the route of the Roman Stane Street in order to make better use of the topography and sit atop of the highest available point (Gower, 2002, 60-61).

Despite Lambard's record of Anglo-Saxon and 'ancient' beacon sites, the historical and archaeological investigation of beacons has tended to follow Stenton's assertion that there was no tradition of Anglo-Saxon beacon use, and instead concentrate on antique sites or those from the Fourteenth Century onwards. Roman use of beacons and signal stations in the British Isles is well known, and it is likely that many of these sites may have been re-used (Kitchen, 1986, 181; Yorke, 2013, 96). Sites such as Old Burrow near Countisbury in Devon were located on hilltops near to defensive sites and forts, and could themselves be fortified to some extent, and were certainly re-used by the Anglo-Saxons (Yorke, 2013, 96; Baskott, 2010, 2-4). The Roman signalling system



was extensive and sophisticated, with coded torch combinations acting as a semaphore to indicate enemy numbers, force composition direction and other details, but also made use of large bonfires as 'crash beacons' when a more urgent and less nuanced message was required (Kitchen, 1986, 181; Garlan, 1975, 150-151).

Without the extensive logistical and infrastructural resources of the Roman Empire, Anglo-Saxon beacons are unlikely to have been developed to the sophisticated level of their Imperial predecessors even if using the same sites, and the historical evidence suggests that bonfire beacons now became the norm. Professor Ward's 1779 '*Observations on the Antiquity and Use of Beacons*' records Edward III's reform of the beacon network in the 1370s, stating that before this, beacons 'were but stacks of wood' and were replaced by pitch boxes, often placed on poles for greater visibility (Ward, 1779, 3). These sites were not recent establishments: When Edward II had previously ordered the greater maintenance and manning of the '*signum perignem*' in 1324, they were specified to be the ones 'as used of old' (Kitchen, 1986, 181; Worsley, 1781, App.VII; *Calendar of Patent Rolls*, 1324-7, 216-218). With traces of Roman signalling on the Isle of Wight limited to a potential lighthouse at St. Catherine's Point, this implies that the system being re-used is Anglo-Saxon in origin, as further suggested by Hill and Sharp's 1997 survey of *weard* sites (Lyne, forthcoming; Hill and Sharp, 1997, 159).

By the time of the Elizabethan renovation of the beacon network, used to great effect during the Spanish Armada, signal fires almost universally took the form of pitch-baskets mounted on poles to ensure their visibility over great distance (Russell, 1955, 268-273). Although bonfire beacons remained in use, these were now maintained largely for ceremonial and celebratory use (Ibid. 275). When further renovations occurred in the late Seventeenth Century, many sites were removed from hilltops in favour of fire-poles mounted on church towers, providing similar elevation but more easily accessible and central to population centres (Ibid. 271). On the South Coast, however, previous hilltop signal stations often saw re-use in the Nineteenth Century, as semaphore stations were constructed as a result of invasion concerns during the Napoleonic Wars (Brooke, 1974, 597)

There is, therefore, a relatively narrow window in which bonfire beacons are in use, between the sophisticated infrastructure of the Roman army and the establishment of fire-poles in the fourteenth century. Alongside Edward II's implication that bonfire signals are established on earlier, pre-Conquest sites, it is the toponymic evidence which heavily suggests that the Anglo-Saxons made use of these sites as signalling and watch stations. That these sites share an often surprisingly similar archaeological

profile is also significant. Beyond some potential charcoaling, there is likely little physical surviving evidence of a signal bonfire, however these sites did leave traces in the landscape. Russell in 1959 argued that Anglo-Saxon *weard* and *tōt* sites relied on horseback messengers rather than signal fires, ignoring the mention of *here-beacens* in the *Anglo-Saxon Chronicle* for 1006, but noted that many of the *tōt* and *weard* hills in Dorset which were later host to fire-poles mounted them on top of ancient barrows, and that many other *tōt* sites were either located at barrows or were host to other artificially constructed mounds (Russell, 1959, 104).

Incorporating a mound into a *tōt* site serves not only to delineate the watch station in the landscape, but also can greatly extend the viewshed and potential intervisibility of the site. The presence of a tumulus in the landscape alone should not imply that the site was subsequently re-used for defensive purposes but the presence of a mound at *tōt*, *weard* and beacon toponymic sites recorded within the National Monuments Record occurs with such regularity that the repurposing of barrow sites or the construction of a *rogus* appears to have been a deliberate part of the siting and establishment of the observation and signalling network. The variation between size and original purpose of earthworks and artificial mounds at *tōt* and *weard* sites is vast; however, an elevation of approximately 1.5m appears to be particularly common. Sites such as the Toot Hills in Healing, Lincolnshire (NMR: TA 21 SW 3) and Macclesfield (NMR: SJ 97 SE 10) are located on Bronze Age bowl barrows of this height, while Toot Hill in Epping Forest (NMR: TL 50 SW 9) was until 1933 the site of an artificial mound used as the hundred moot-hill and later used as the foundation of a windmill.

Care must be taken with 'beacon' sites which also exhibit the same landscape signature as *tōt* and *weard* sites, as these may be the sites of Elizabethan or subsequent beacons also constructed atop barrows or other artificial mounds, however in many cases toponymic and archaeological evidence suggests that these were sites in longstanding use. Indeed, many 'beacon hills' are located in settlements with Old English place-name elements indicating watch-post hills, such as Beacon Hills in Great Totham (NMR: TL 81 SE 25) and Tettenhall, and Beacons Down at Totleigh in Highampton, Devon (NMR: SS 40 SE 3). In 'beacon' sites where longstanding occupation is shown, the familiar landscape signature is often found. Beacon Barrow in Hinton Charterhouse, Somerset (NMR: ST 75 NE 10) is the location of a Bronze Age barrow c.25m in diameter and 1.5m in elevation which also shows evidence of Roman occupation suggesting it could have been a signal link with the Roman settlement at Bath 8km to the north. At Beacon Hill in Ripponden, Calderdale (NMR: SE 01 NW 13), a Bronze Age bowl barrow, again 1.5m in elevation, appears to have been flattened and widened to a diameter of 28m to provide the *rogus* for a medieval beacon site.

A survey of potential beacon sites therefore should search for three main criteria: a commanding topographic position, intervisibility with other sites, and the presence of a regular, artificial mound whether in the form of a barrow or just a mound, as well as any other evidence of continued site occupation and use. That a site does not have a *rogus*, however, does not automatically disqualify it, as it may have been demolished in the intervening period, such as at Epping Forest, or the Roman signal station recorded to have once stood in Beacon Field, Godmanchester in Cambridgeshire (NMR: TL 26 NE 6).

### Identifying Areas for Case Study:

While postulating that the Burghal Hidage network in Wessex was built within a single two-year period of construction, Haslam stated that ‘the fortresses of Mercia... at no time constituted a system, but rather formed a disparate and non-contemporary series’ (Haslam, 2006, 140). However, if we follow Baker and Brookes that *burhs* cannot have operated in isolation, then this must also hold true for the West Mercian *burhs*, regardless of whether or not they were *de novo* constructions or based upon prior fortifications. Indeed, many of the Æthelflædan *burhs* were newly-founded sites and all were built at sites of similar strategic import as those listed within the *Burghal Hidage* and thus it must be presumed that they were linked in some fashion. In 910, Edward the Elder sent ‘his army both from the West Saxons and the Mercians’, potentially under the command of Ealdorman Æthelred, against a Northumbrian army attacking Mercia (ASC MS.A, s.a.910, Whitelock, 1961, 61). Edward was with his army in Kent, suggesting that this English army was comprised of burghal *fyrð*. The English tracked the Danes and defeated them at the battle of Tettenhall, which is itself toponymically suggestive of a watch-station, which would have required regularly updated information on the Danish movements and disposition. When a Viking army under the earls Ohter and Hroald raided Wales in 914, they were met in battle by ‘the men from Hereford and Gloucester and from the nearest boroughs’ and put to flight which implies an effective means of co-ordination between those *burhs* (ASC MS.B, s.a. 914, Whitelock, 1961, 63).

The evidence discussed above has suggested heavily that the Anglo-Saxons used beacons for coastal defence, and both the contemporary use in France and Norway, and the presence of beacon *weard* sites at inland locations like Highclere and Sherborne suggest that the beacon network was not limited to this role and was in fact extended far into the country (Lavelle, 2010, 124). If the West Mercian *burhs* did function as part of a cohesive network like their West Saxon predecessors, therefore, it

can be hypothesised that a similar communication system of signalling beacons also existed within the West Midlands.

As in the areas studied on the south coast of England, we must presume that any network of signalling and surveillance stations within Mercia would be predominantly situated in order to provide the best possible control over the active frontiers in the areas most at risk of attack or most strategically viable, with subsequent chains providing communication deeper behind the frontier, along the most important routes and between significant sites in order to provide the means for defence in depth. In Mercia, this means that the most likely area for the presence of beacon sites would be in Cheshire and Staffordshire along the main borders with the Danelaw and the coast, with further sites stretching into the interior of Mercia, theoretically connecting those frontiers with not only the *burhs* in those two counties, but also further sites, such as Bridgnorth, as well as with local defensive sites networked to those *burhs*. Topography will be particularly important in identifying sites with appropriate control over the local landscape and significant routes.

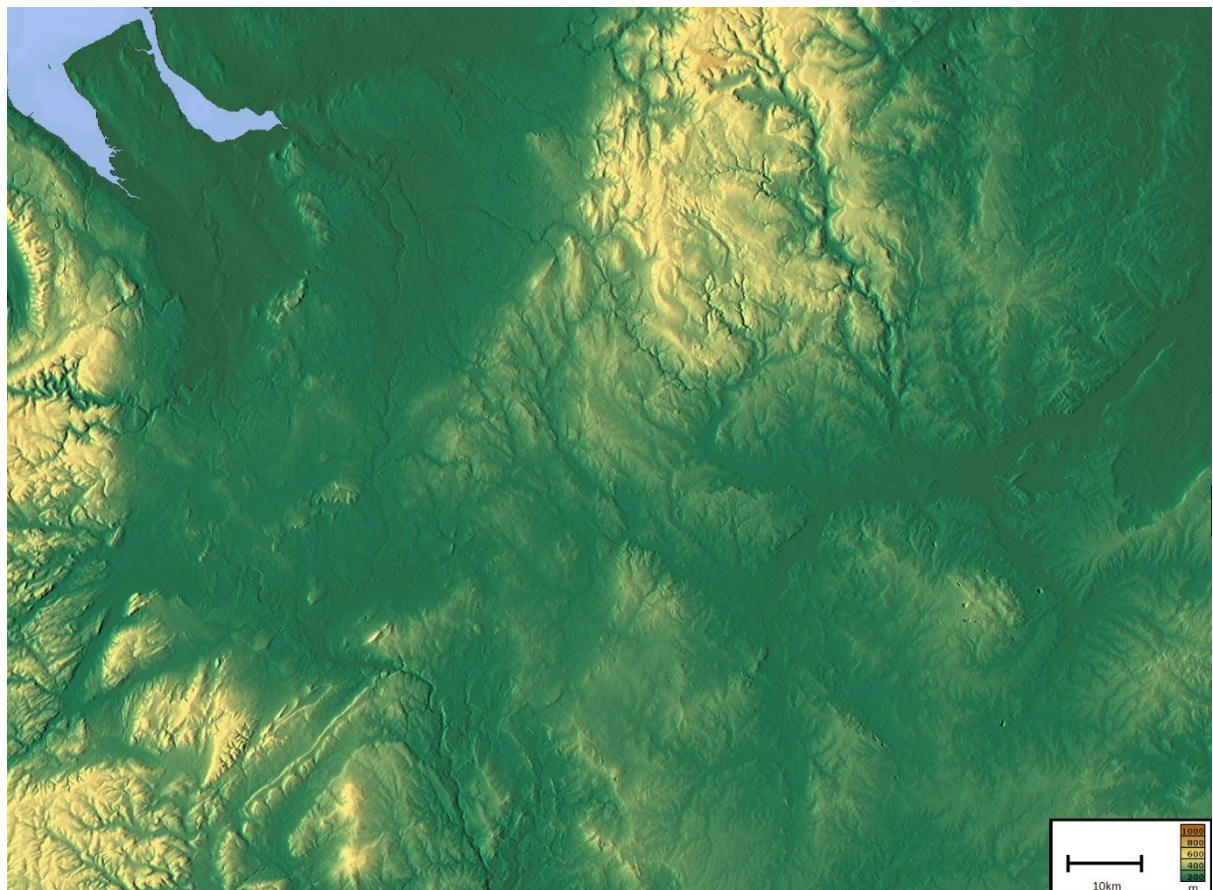


Figure 23: Topography of the Cheshire, Staffordshire and North-East Shropshire region, and border with the Danelaw. Base map, Base map: USGS; Maps-For-Free (2016)

One of the earliest *Æthelflædan burhs*, Chester is not only a prime candidate for the presence of coastal defence beacons, but is also situated near to borders with Wales to the West, Northumbria to the North-East and the Danelaw to the East. The establishment of the *burhs* at Eddisbury in 914 and Runcorn in 915 also suggests that communications would have occurred between these sites. The *burhs* at Tamworth and Stafford were established by *Æthelflæd* in 913 and would have been an active front-line against the Vikings until the capture of Derby in 917, and to some extent continued to be so until the capture of Leicester in 918 and the establishment of the *burh* at Nottingham in 920. The two were linked by a Roman road running to the north of what is now the A50 alongside the River Tean to Derby, with a probable Roman road running south to Stafford along the course of the Trent from Stoke-upon-Trent (Carver, 2010b, 65). This internal road connection would allow for messengers to travel between the *burhs* alongside men and materiel, but due to the speed benefits of visual signalling, it must be assumed that any beacon network would also extend along this route. Indeed, it must be assumed that any networks would not be contained to isolated systems operating within their respective counties, but would be linked on a Mercia-wide scale.

Cheshire was vulnerable to both maritime attack and Northumbrian armies marching through the Aire Gap to the North. This risk would have been mitigated somewhat by the establishment of Edward's *burhs* at Thelwall and Manchester in 919, although these would not have negated the need for communication, and the risk of attack remained well into the 940s (ASC MS.D, s.a. 942 & 943, Whitelock, 1971, 71). There may also have been risk from the Welsh kingdoms to the West: although these were nominally loyal to *Æthelflæd* and later to Edward, a punitive Mercian military expedition against *Brecenanmere* had been deemed necessary in 916 and the presence of at least a surveillance network along the Welsh border would have been a practical development.

A potential beacon chain in Cheshire can therefore be expected to run in four principle directions. Primarily, beacons could be expected on The Wirral as a warning against maritime raiding, and inland running north from the city towards Manchester to signal a land-based attack. To the East, a signalling chain towards Staffordshire might be expected to run along the route of the Roman road, corrected for topography, in the direction of Stoke-upon-Trent and Stafford. Finally, signals should run to the South-West towards Shropshire and the Welsh border, although these might be expected to be less extensive than those to the North and West given the apparently more peaceful nature of this frontier.

In Staffordshire, the distribution of beacons could be expected to follow a somewhat mirrored distribution, albeit one reconfigured to respond to a threat primarily from the North-East. The eastern border of Staffordshire is open to many main travel arteries from the North and East which would greatly have increased the need for a civil defence infrastructure in this sector. Ryknild Street leads directly north from Watling Street through Lichfield and Burton-on-Trent to Derby, and the Roman roads which run from there to the east coast. These roads had survived mostly intact into the ninth and tenth centuries and would have provided a convenient causeway for the Danes at Derby to strike south towards the Episcopal site at Lichfield and the *burhs* at Stafford and Tamworth (Hill, 1982, 65; Stafford, 1985, 12). The River Trent, which runs to the north and east of Stafford and confluences with the Tame just south of Catholme, was navigable throughout Nottinghamshire and at least as far as Repton if not beyond (Stafford, 1985, 12).

Given the shallow draft of typical Viking vessels, this too would have served as a prime route for a mobile force to strike towards Stafford or Stoke-upon-Trent, a risk heightened by the confluence of the Trent and Humber allowing forces as far north as York to easily reach the county (Stafford, 1985, 12-14; Palliser, 1976, 50). A beacon chain in Staffordshire, therefore, should be expected to follow three main arteries: South along Ryknild Street from Derby towards Burton-on-Trent, Lichfield and Tamworth, West along Rykeneld Street and the River Tean from Derby towards Stoke-upon-Trent, potentially continuing towards the chain from Chester along the course of Rykeneld Street, and running East-West along Watling Street between Tamworth and Telford, potentially as far as the mint town at Shrewsbury. Stafford lies effectively half-way between Watling Street and the Stoke-upon-Trent to Derby Road and so here beacons should be expected to run north along the course of the River Trent towards Stoke and south in the direction of Penkridge, where a potential Roman road connects to Watling Street (Carver, 2010b, 65).

Within Shropshire, a network of sites should be expected linking Bridgnorth to Watling Street and the *burhs* within Staffordshire, as well as likely with Wroxeter and Shrewsbury, eventually connecting to a Cheshire system. It can also be expected that a series of sites should link Bridgnorth with Chirbury, as well as with any significant Anglo-Saxon settlements or defensive sites within Shropshire itself, potentially connecting as far south as Hereford or Gloucester, given that the garrisons from those towns allied with burghal garrisons in a victory over a Viking raiding army in 914. In all three counties to be studied, the location of potential surveillance and beacon sites should also be important in pinpointing local strongholds and forts used as defensive

nodes in a wider Anglo-Saxon network of landscape defence, identifying potentially new sites of settlement or refuge.

## Case Studies Methodology: Preliminary Surveys

The identification of an Anglo-Saxon surveillance and signalling network within Mercia was carried out through two main stages, with an initial survey of viable sites being identified, mapped and studied allowing for a second, more in-depth field survey to examine select sites physically and assess their function and survival within the landscape. As suggested by Hill, Sharp and Gower, the primary means of identifying any Anglo-Saxon site is toponymic, and this study's initial priority was looking for place-name elements associated with observation, guard and beacon sites, in particular *tōt* and *weard*, as well as 'beacon' toponyms.

These were primarily referenced from volumes of the English Place-Name Society county series for Chester and Staffordshire (Dodgson, 1970, 6 vols.; Oakden, 1984, 2 vols.). This was supplemented with data from *The Gazetteer of British Place Names*, an online database cross-referenced with mapping data. The 'Kemble' online database of Sawyer's *Anglo-Saxon Charters* was also used in conjunction with Langscape to look for corroborating evidence of *tōt* and *weard* sites, particularly in boundary clauses, as well as finding records of hundreds which might suggest potential sites.

Several place-names now refer to settlements, but in many cases apply to hills as referenced in parish tithe maps. Wherever possible, resulting locations were cross-referenced with *Domesday Book*. This was carried out both to verify the existence of the resulting sites as close as possible to the tenth century, and in order to eliminate false positives created by unusual derivations from the original Old English toponyms and similar linguistic confusions. Cheswardine in north-east Shropshire, for example, was eliminated from the list of possible *weard* sites as it appears in *Domesday* as *Cheswordene*, suggesting an origin as a site of cheese manufacture rather than of civil defence. Although *burh* sites often carry a defensive connotation, their primary meaning still denotes merely an enclosure, with this reflected in a proliferation of *-bury* or *bur-* sites across the Midlands, stemming from many centuries of Mercian activity and filling a variety of roles. Therefore, *burh*-related toponyms were not considered for this survey.

Likely sites for surveillance or communication nodes were then mapped, which allowed for the visual identification of any likely networks. This also enabled the identification of any gaps in the series which provided grounds for further study. In many cases, these gaps coincided with areas known for Iron Age or Roman fortification. If *burhs*

functioned as hubs of civil defence networks, then those networks require localised nodes, which in turn required communication with the hub. As Baker and Brookes have shown, a key element of this system was the use of local refuges and strongholds, often in the form of hill forts, whether merely re-occupied, or refurbished as in the case of the *Æthelflædan burh* at Eddisbury (Baker and Brookes, 2011, 110-111; Brookes, 2013, 45-46). As well as the list of *tōt*, *weard* and beacon sites, therefore, the survey was expanded to encompass hill fort sites with potential or confirmed Anglo-Saxon activity, or with evidence of *rogi*.

In many cases, the hill forts are still extant, and some show evidence of Mercian re-use. Others are now largely destroyed but were recorded in historical archaeological reports surveyed in areas where the topography suggested they might be likely. Likely hillforts included Bury Bank in Tittensor Chase, Berth Hill in Maer and Bignall Hill near Audley. In order for the civil defence network to function, both these defensive nodes and the *burhs* themselves would have to be connected to the network. These were then added to the model and a more definite pattern can be seen. In some cases, investigation of hillforts and other defensive sites provided further toponymic evidence which had previously been omitted from other sources. The hillfort at Chesterton Walls, north-east of Bridgnorth, for example, neighbours the prominent Anglo-Saxon settlement at Worfield (see Chapter 5), but also contains a hill known as Totter's Bank with commanding views over the local landscape (Shropshire HER 00433; Gelling, 1997).

The results of this survey were extensive, and showed a distribution of *tōt* and *weard* sites throughout the West Midlands, and demonstrating clear patterns. This not only establishes that these toponyms were not limited to sites within Wessex, but the pattern of distribution also suggests that they were not 'multi-purpose' toponyms which could be assigned to sites with a variety of functions such as *burh* forms. This distribution is mapped below:



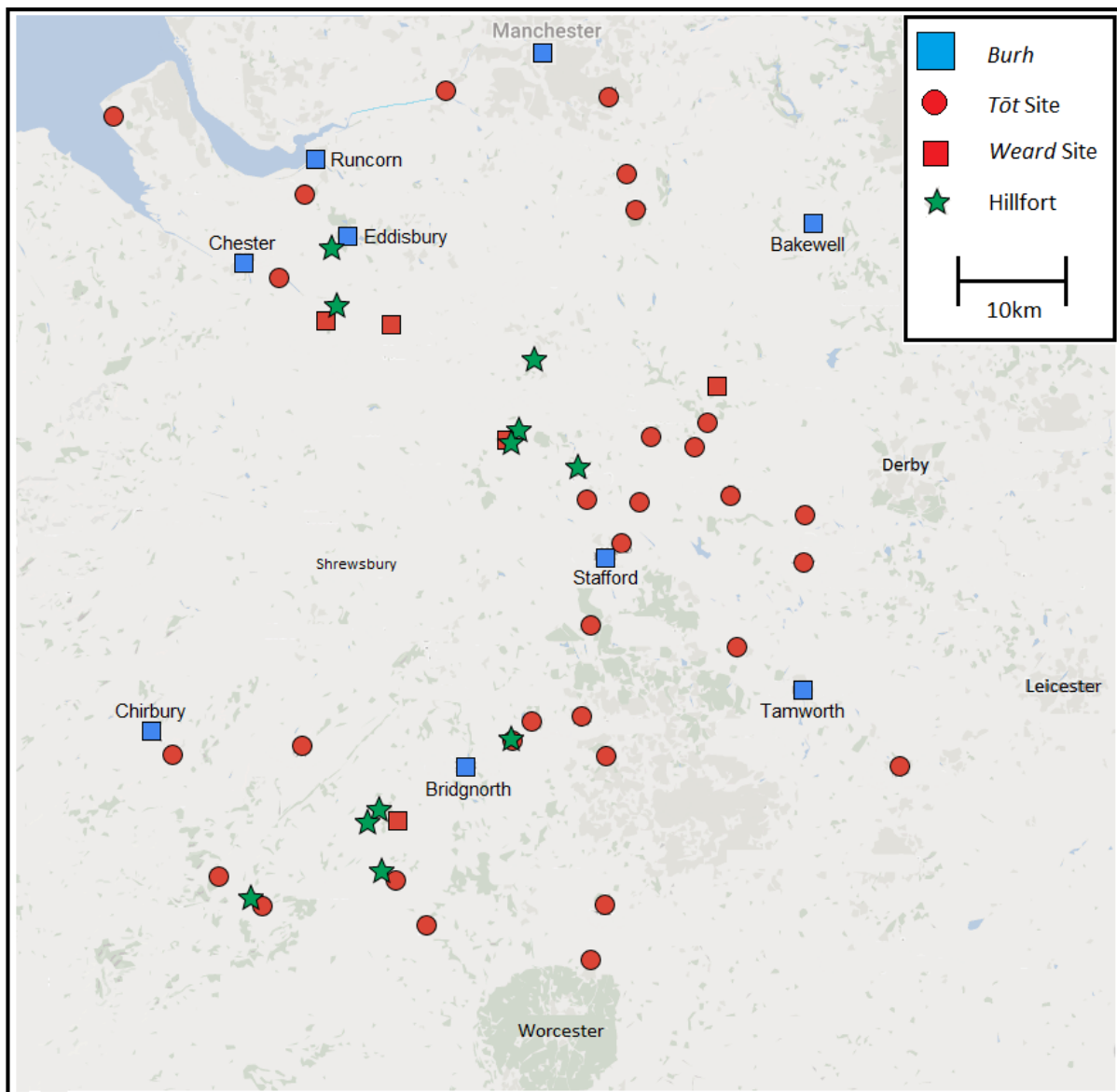


Figure 24: The distribution of sites with Anglo-Saxon toponyms related to surveillance and defence within West Mercia. Base map, Google Maps (2016), with all annotations the author's own.

Already, Fig. 24 shows a significant pattern in the distribution of Anglo-Saxon defensive toponyms, and this becomes more apparent when illustrated at a county level alongside the routes of known sections of Roman roads and rivers which would have formed the principal travel routes of the ninth and tenth centuries. These distributions are shown below. Fig. 24 shows a strong correlation of defensive sites along the Mercian border with the Danelaw, clustered to the West and South-West of Derby, as well as the areas around the Aire Gap and the edge of the Peak District. This area was clearly of military significance, given the additional *burhs* constructed by Edward the Elder at Manchester in 919 and Bakewell in 920. The proliferation of sites south of Manchester suggests that the *burh* there was linked to Æthelflæd's Mercian network, potentially via Runcorn, and it is probable that Bakewell was also in communication with the wider burghal network, with a mound on Castle Hill in the town bearing similarities to *rogi* found throughout West Mercia (see below).

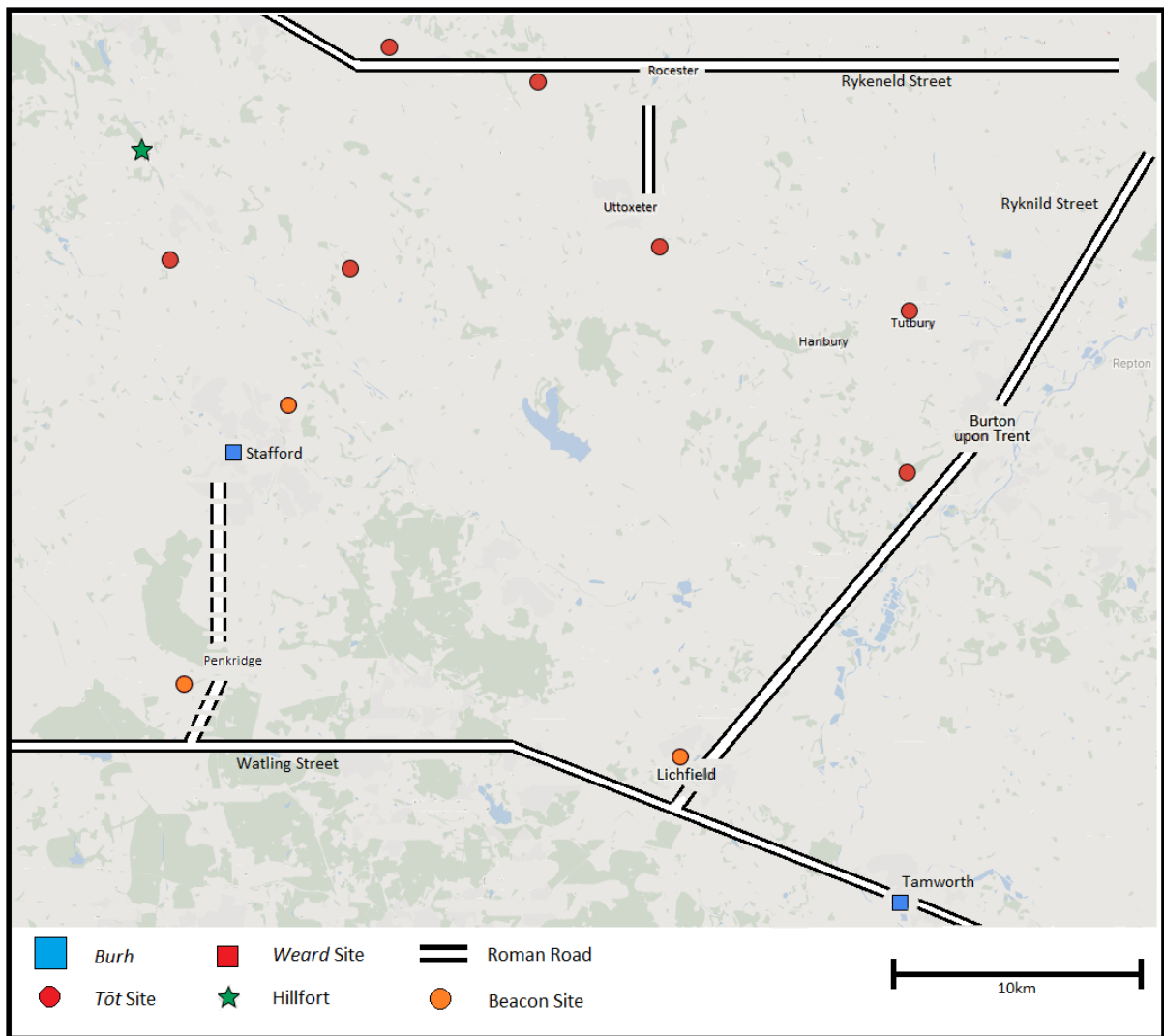
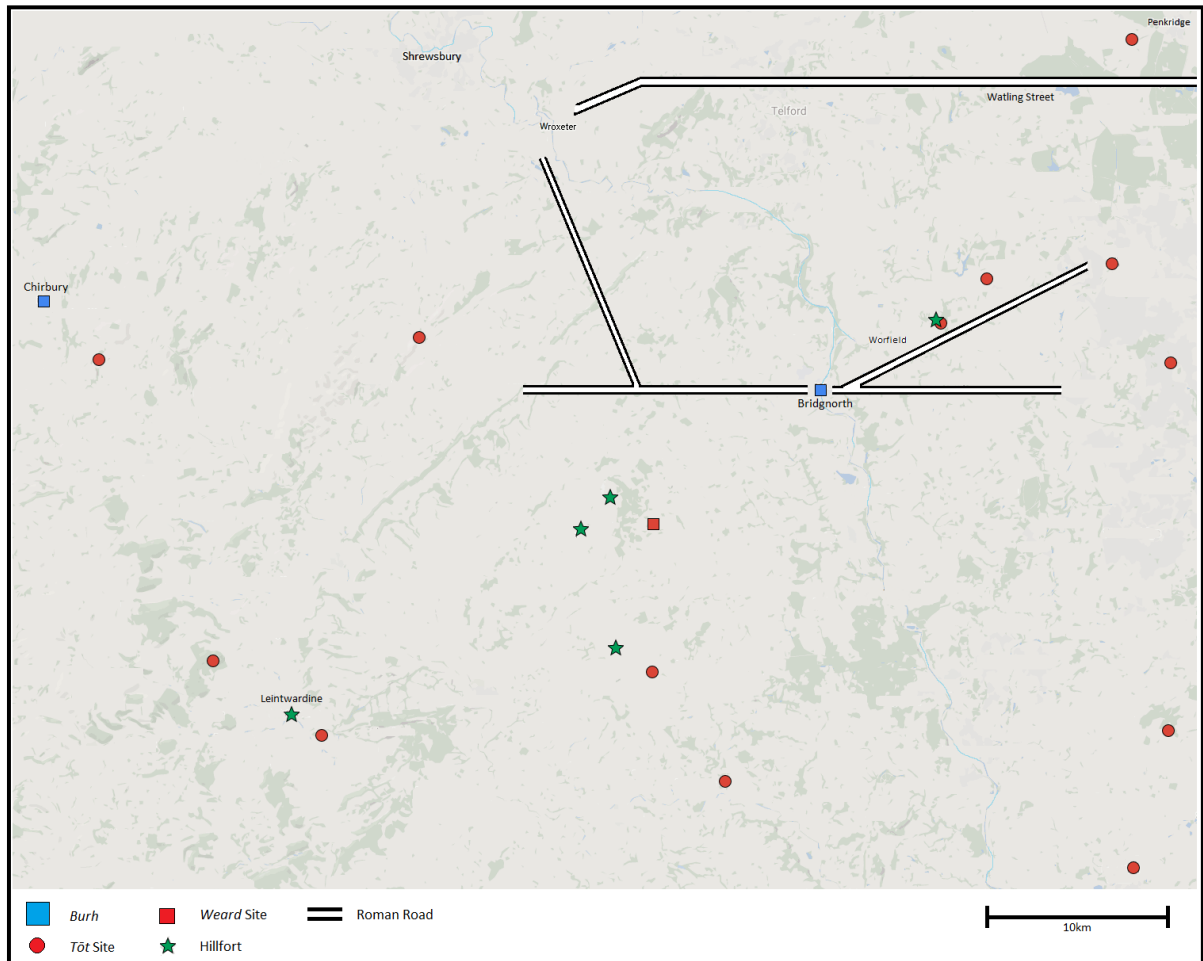


Figure 25: Distribution of Anglo-Saxon defensive toponyms in Staffordshire. Base map, Google Maps (2016) with all annotations the author's own.

Within Staffordshire, the distribution of defensive toponyms is clear along four main axes, essentially forming a square between Tamworth, Derby, Stoke-on-Trent and Penkridge. Particularly important is the chain of sites beginning at Tutbury which follows the course of the River Dove from Derby, before linking via Uttoxeter and Rocester with the Roman Road at Rykeneld Street, running between Chester to Derby via Stoke-on-Trent. Rocester itself is likely the site of a small Mercian garrison, or at the very least formed an important local stronghold in the wider defensive network with its Roman Walls largely intact (see Chapter 5). Between Tutbury and Stoke-on-Trent is a Toothill at Uttoxeter, Toot Hills at Alton and Hollington, and Totmonslow near Blythe Bridge. Another chain of sites runs south-west along the course of Ryknild Street and the River Trent from Derby to Watling Street, linking with Tatenhill, and a Beacon Hill at the Anglo-Saxon episcopal centre at Lichfield, which itself is linked along Watling Street with the *burh* at Tamworth and another Beacon Hill at Penkridge, itself a prominent tenth century site (see Chapter 5).

Penkridge, in turn, appears to be in a series to the north with a Beacon Hill overlooking the *burh* at Stafford, Pirehill overlooking Aston-by-Stone, the centre of Pirehill Hundred, and Bury Bank hillfort outside Tittensor, a chain of sites along a potential Roman road linking the Stafford *burh* with both Rykeneld Street and Watling Street. It is possible that it is also in further series along Watling Street towards Telford. Penkridge is also likely to join with another series of sites in Staffordshire seen in *Fig. 24*.



*Figure 26: Distribution of Anglo-Saxon defensive toponyms in Shropshire. Base map, Google Maps (2016) with all annotations the author's own.*

One series of sites in Shropshire is immediately identifiable, with three further likely chains. From Penkridge, a series of beacon sites stretches from Watling Street, and by extension the *burhs* at Stafford and Tamworth, to the *burh* at Bridgnorth via Tettenhall, Tutters Hill outside Pattingham, and Tutter's Bank at Chesterton Walls hillfort, overlooking the prosperous Anglo-Saxon settlement at Worfield (see Chapter 5). Beyond Bridgnorth is a likely connection further south with Burwarton, which sits at the foot of the Brown Clee Hills. Two hillforts, Nordy Bank and Abdon Burf, dominate the crest of the Clee Hill ridgeline with views over the surrounding landscape, and are thought to be Iron Age in origin but have been largely destroyed by mining and quarrying activity.

Beyond Burwarton, Doddington sits at the base of Titterstone Clee Hill, with an Iron Age hillfort at the summit showing indications of Anglo-Saxon re-occupation (Shropshire HER 00427/FSA936). Evaluation of the Titterstone Clee hillfort also found evidence of a Bronze Age bowl barrow that had subsequently been lowered, potentially to form a *rogus* (Shropshire HER 03299). The summit of the hillfort provides surveillance over the nearby Little Hereford, indicating a strategic crossing of the River Teme, with another crossing further east near Doddenhill. It is possible that this Doddenhill connects with a Dodderhill situated to the east between the major Anglo-Saxon fortified town at Worcester, and the important settlement at Droitwich.

To the west of Bridgnorth and the hillfort at Burwarton, the substantial hillfort at Caer Caradoc sits above the Anglo-Saxon town at Church Stretton, across a valley from the Iron Age hillfort at Bodbury Ring, potentially itself a corruption of the *tōt* toponym. On the north slope of the 'Little Caradoc' hill, a suspected bowl barrow forms a potential site for a *rogus*, with a truncated top and layers of ash with flint deposits indicative of large fires. This site in turn is in series with Todleth Hill overlooking the *burh* at Chirbury.

In Southern Shropshire, two potential *tōt* sites surround the town of Leintwardine, a former Roman settlement re-fortified by the Anglo-Saxons and the likely site of a Mercian garrison (see Chapter 5). These are Totteridge Hill above Downton-on-the-Rock, and Hopton Castle Titterhill. The topography of Totteridge Hill and Titterstone Clee Hill suggests that the two sites be intervisible, and thus in turn suggests that the two are contiguous points on a signalling network.

Within Cheshire, the series is less extensive, although this is likely a result of topography, as it nonetheless appears to still provide surveillance along the network of rivers and Roman roads, as well as frontier areas. A series of sites extends from Bignall End hillfort along the Roman road between Stoke-on-Trent, and by extension Staffordshire, and Chester, with sites at Wardle, Burwardsley, Beeston Castle and a Toothill at Waverton. East of Chester, the Roman road passes Kelsborrow Castle and the *burh* at Eddisbury before turning north towards Northwich and Manchester. To the north, the Teuthill at Helsby hillfort watches over the Mersey and connects Chester to the *burh* at Runcorn. Beyond this distribution, Warburton potentially links Cheshire with the later *burh* at Manchester, or guards the crossing of the River Mersey, with some supposition that this could be the 'lost' *burh* of *Weardbyrig*. A Toot Hill at Macclesfield and Tootings Hill in Stockport potentially watch the Peak District, or link the Edwardian *burhs* at Manchester and Bakewell, itself overlooked by a large *rogus*, with the Æthelflædan network via Wardlow and Stoke-on-Trent.



Figure 27: Distribution of Anglo-Saxon defensive toponyms in the Cheshire Plain. Base map, Google Maps (2016) with all annotations the author's own.

## Testing the Network: Field Work and Visibility Surveys.

In order to support the toponymic and topographic surveys, field work was carried out in late March 2015 with the aim of providing more tangible evidence to support the theoretical mapped network of beacons and to see how this model translated onto the physical geography of Staffordshire and Cheshire, with visual survey was planned to assess the inter-visibility of the mapped sites. Although the map provided by the toponymic survey presents a viable base model for the presence of a network of signalling points, this must be tested for its practicality in the field, especially since many of the distances between the sites are much greater than the six or seven kilometres between tût sites found to be average in Gower's potential London to Chichester beacon network (Gower, 2002, 60-61). The fieldwork would assess the inter-visibility of the sites listed by the toponymic data and seek to distinguish the viewsheds of individual sites in order to assess their potential use within the wider network, as well as visually assessing the landscape for both strategic features and for any lasting physical evidence that might suggest the presence of a tût or weard.

Due to the constraints of time and access, this survey was carried out only on two main arteries, but with the hope that if this work proved successful, it would suggest that other possible arms of the beacon network was also in existence. The first part of the potential network to be surveyed was that between Derby and Chester along the route of the Rykeneld Street via Stoke-on-Trent, as suggested by the toponymic survey. The second area was between this first route and Watling Street, based on the hypothesis that Stafford cannot have operated in isolation, and was instead linked to main travel arteries to the North and South as well as the River Trent. Stoke-on-Trent lies in the middle of this network, roughly equidistant between Chester and Derby, and is central to the largest gap in the network map modelled from the toponymic data. Therefore, the visual survey was carried out in three parts each converging on Stoke-on-Trent, as it was hoped this would indicate whether the Cheshire chain running East, the Tean Valley chain running West and the Staffordshire chain running North linked in this area, and if possible identify where this link took place.

The majority of sites selected for visual survey lie today on private land, for the most part farms, although fortunately nearly all are available to the public through footpaths. Where this was not the case, access was secured through the co-operation of the landowners apart from in one case of dangerous livestock, where an alternative viewpoint had to be located. Many sites, as hilltops commanding the local landscape, have also been selected as triangulation stations or 'trig points' by the Ordnance Survey. Roughly a millennium of changing land use has, however, somewhat complicated the task of surveying these sites, as contemporary viewsheds have been significantly altered by modern residential and industrial development, transport links and agricultural landscaping. Whilst the route of Watling Street remains mostly intact and the Roman road running West from Derby has been preserved largely due to the A50 running closely to the South, the route of a connecting road running through Stafford has been almost entirely obscured by the A449 and the M6, and large areas of the countryside in these areas are also host to large factories and industrial estates, the sheer size of which often inhibit the lines of sight from *tōt* or *weard* sites. In some cases, lines of sight are also disrupted by modern housing developments built on or around hilltops, farm buildings or cultivated woodland. A Victorian propensity for 'protecting' suspected barrows and other historical sites from agricultural erosion resulted in many cases where tumuli were found to have had trees planted on them, thus lowering the height of the mound and disrupting the view, or had been surrounded by cultivated woods, completely obscuring the viewshed and requiring some compromise on the level of survey that could be carried out. In particular this frustrated the ability to properly calculate viewsheds, since the sites had often been 'protected' at

the expense of losing their primary purpose. Some modern development, however, did prove to be beneficial, with features such as wind turbines, electricity pylons and church steeples enabling the easy identification of specific hilltops at range or against the backdrop of ridge-lines.

The primary aim upon accessing each site was to determine the existence of any surviving physical remains that may have indicated the presence of a watch post, such as a *rogus*. Where these were present, their dimensions were recorded. It was then necessary to discern the intervisibility of each site and its role in the landscape, with lines of sight to other *tōt* or *weard* sites, settlements, roads or rivers. At each site, an OS map and compass was used to provide proper orientation, before combining visual surveying and the map to locate prominent points and other noted toponymic sites. At the time of surveying in late March, the weather was largely good, with some rain and low cloud in Cheshire. Given the effects of weather on a system dependent on visual signals, a record was taken of weather conditions and any hindrance on visibility. Given that a surveillance network was most likely to be on alert during the 'campaign season' of late spring to early autumn, less favourable weather conditions were potentially a lesser concern, but still important to note given the propensity for poor summer weather in the Midlands and Peak District. Where intervisibility was achieved with other *tōt* or *weard* sites, or oversight was possible of prominent routes, settlements and landmarks, photographic evidence was taken, as well as of any physical features at the site. For each site surveyed, a database was compiled of toponym, weather conditions at the time of survey, the presence of any *rogus* or defensive feature and its dimensions, current land use, and the visibility of other defensive toponym sites, roads, rivers or settlements present in the tenth century. This database is visible in full in Appendix 1.

### Route 1: Derby to Totmonslow

The first first area to be visually surveyed started just West of Derby, where the confluence of the rivers Trent and Dove and both Rykeneld Street and Ryknild Street would have provided readily accessible routes for raiders or armies striking South towards Burton-on-Trent and Lichfield, or West towards Uttoxeter, Hanbury and Stoke-upon-Trent. 16km west of modern Derby is one of the prime results from the toponymic survey, Tutbury, appearing in *Domesday Book* as *Toteberie*. Tutbury is now famous for its castle, but its name suggests a previous Anglo-Saxon defensive role, with both an enclosure and a look-out point (Dodgson, 1981, 369; Hislop, Kincey and Williams, 2011, 11). Indeed, the prime defensive location of Tutbury and the presence of probable re-occupied Iron Age earthworks surrounding the Anglo-Saxon town have led to speculation that it could be the site of one of the 'missing' Æthelflædan *burhs*



(Hislop, Kincey and Williams, 2011, 11; Kincey, 2011, 50-56). Possible burghal status notwithstanding, Tutbury is a prime *tōt* site, as the presence of its castle demonstrates its commanding lines of sight over the surrounding countryside. The River Dove runs below the castle hill, and although Rykeneld Street is not visible to the immediate North, to the North-East can be seen Ryknild Street and, despite the inconvenient presence of a large factory complex in Hilton, Derby and its approaches are also clearly visible. To the West, Tutbury extends lines of sight along the Dove and the Tean Valley beyond, suggesting potential inter-visibility with multiple *tōt* sites and Anglo-Saxon settlements along the course of the valley.



*Figure 28: The view east from Hanbury. Arrow indicates the ruins of Tutbury Castle which are clearly visible. Photograph author's own.*

Roughly 4km West of Tutbury is the village of Hanbury, situated on a high hill with a commanding view of the North and East. Hanbury itself was not part of the toponymic survey; however it is a known Anglo-Saxon settlement. Thought to have been originally a Mercian foundation, the current church of *St. Werburgh* is largely twelfth-century, although it retains some Anglo-Saxon stonework in its western wall (Tringham, 2007, 3). Forestation and development to the South and the ridgeline to the West have impeded the lines of sight in these directions, although Marchington and the ridgeline beyond it are partially visible, but to the East, Tutbury Castle is distinct and clear. This should not necessarily imply that Hanbury was in any way a relay station of the beacon network, and indeed no toponymic evidence suggests that this was the case. A



warning signal, however, is useless if there is nobody in a position to receive it, and the settlement at Hanbury would have been well situated to receive signals, both from Tutbury and possibly from Uttoxeter, warning its residents to either flee, perhaps to Tutbury, or possibly to take advantage of the village's topography as a measure of refuge and safety compared to lower villages in the valley below.

The next töt site and potential relay is a Toothill roughly a kilometre south-east of Uttoxeter, and approximately 11km west of Tutbury. The 'hill' itself is located at the end of a ridgeline running east from a peak near Willslock, and is distinguished by its tumulus, a regular and clearly artificial mound, approximately circular and roughly 1.5m in elevation with a flat, level top approximately 25m in diameter. Excavations in 1860 found that the site was originally a Bronze-Age barrow containing a cremation urn and calcined bones buried some 1.2m down, as well as flint flakes, although these were not identified or aged (Page, 1908, 377; Staffs. HER 00144; NMR: SK 13 SW 1). The presence of a sherd of Castor wear pottery also suggests the site had since been re-used in some form by the Romans. The rim of a small storage vessel rather than a burial urn, this sherd suggests that Roman re-use of the site may not have been as a barrow or re-burial site but instead could signify that the barrow was re-used in a way that would require the resupply of a manned presence, potentially a guard post or signal station.



Figure 29: The *rogus* formed from a Bronze-Age barrow at Toothill, Uttoxeter. Photograph author's own.

Given that this mound stands alone on an otherwise relatively flat ridge-top, and affords clear lines of sight in all directions, it may have been at this point that the site was re-used potentially as a look-out post for the Romans at Uttoxeter and Rocester. That this hill was chosen as a *tōt* site suggests that this barrow would have been purposely selected as a vantage point, likely because of its commanding viewshed, and the Anglo-Saxons may have been continuing a Roman practice of stationing a watch at the site. Indeed even today the view in all directions is interrupted only by a small modern housing development nearby and tree-lines cultivated along current field boundaries. The barrow itself appears to have been repurposed, and may well have served for the basis of a *rogus* as described in S895. Given that this mound stands alone on an otherwise relatively flat ridge-top, and affords clear lines of sight in all directions, it may have been at this point that the site was re-used potentially as a look-out post for the Romans at Uttoxeter and Rocester. That this hill was chosen as a *tōt* site suggests that this barrow would have been purposely selected as a vantage point, likely because of its commanding viewshed, and the Anglo-Saxons may have been continuing a Roman practice of stationing a watch at the site. Indeed even today the view in all directions is interrupted only by a small modern housing development nearby and tree-lines cultivated along current field boundaries. The barrow itself appears to have been repurposed, and may well have served for the basis of a *rogus* as described in S895.



Figure 30: View north-west from Toothill, Uttoxeter. Arrows indicate the town of Uttoxeter (left), Toot Hill at Alton (centre) and the Mercian garrison site at Rocester, on Rykeneld Street (left). Toot Hill at Hollington is obscured by the trees (left foreground). Photograph author's own.



From the top of Toothhill, Uttoxeter is immediately visible to the North-West. Uttoxeter itself is another known Anglo-Saxon town, appearing in *Domesday* as 'Wotocheshede', likely meaning 'Wuttuc's Homestead', and it is probable that a beacon on Toothhill would have served as an early warning for the town as well as a relay in a wider network. Beyond Uttoxeter, the hills at Hollington where a Toot Hill is located are also visible, as is the ridgeline at Alton, location of another Toot Hill, some 11km away. To the North, the Roman settlement at Rocester, also still inhabited by the time of *Domesday*, is similarly distinguishable, just to the left of the ridge in the right middle-ground in Fig.30 (below).



*Figure 31: The view east from Toothill, Uttoxeter. Arrows indicate Tutbury (left) and Hanbury (right). Photograph author's own.*

The view East from Toothill is now partially obscured by a small area of dense woodland cultivated by the farm which now occupies the east end of the ridge, and the garden of the neighbouring retirement home. However, beyond this the viewshed is not significantly diminished from that atop the mount, and provides a clear line of sight as far as Tutbury. Unfortunately, this modern interference with the landscape complicates establishing proper lines of sight, given that at both Toothill and other tōt sites it was often necessary to leave the rokus or summit behind in order to see around modern obstacles. Weather conditions at the time of the visual survey were good, granting a high level of visibility meaning Tutbury could easily be recognised from its elevation and profile of its castle. Even in poor conditions, however, the hill is sufficiently clear

that either a sufficiently large fire or smoke should have been visible. Both the Church of St. Werburgh and the modern water-tower at Hanbury were also extremely clear at this range, which suggests that the Anglo-Saxon settlement there could have also been in visual communication with the tōt site here.

Another Toot Hill lies 8km North-West of the one at Uttoxeter, outside the village of Hollington. Hollington lies on Rykeneld Street, 4km West of the Roman and later Anglo-Saxon settlement at Rocester and the Toot Hill lies roughly a kilometre south of the village itself. This site therefore provides well-sited surveillance and control over movement along what would have been a major route West. As at Toothill, Uttoxeter, the Toot Hill at Hollington is also marked by a small tumulus, however this appears to be severely reduced in size. Another potential barrow, the mound here is smaller both in diameter and elevation; approximately three metres in diameter, although it does appear to have originally have been both larger and sited on top of the hill which has since subsided. This reduction is most likely due to intensive cultivation of the neighbouring fields and construction which has altered the topography of the hillside, as well as animal activity. Earlier excavations suggest the mound was approximately 16m in diameter and 1.2m high (NMR: SK 03 NE 3). A layer of charcoal just below the turf also suggest that fires were regularly lit here.



*Figure 32: The severely degraded tumulus at Toot Hill, Hollington. Photograph author's own.*

The viewshed of the Hollington Toot Hill is more limited than that from Uttoxeter, and indeed to the North lines of sight extend only as far as the village itself and the ridgeline to its immediate North. To the South-East, Uttoxeter and its Toothill are both visible, and to the West the high ground to the West of the River Tean where Totmonslow lies is also visible. The River Tean can also be seen between the modern A522 and the A50. With the current state of the Toot Hill tumulus, the Totmonslow hilltop itself is not visible beyond the crest of the hill a kilometre West of Hollington; however, the electricity pylons which now run along the hilltop can be seen. This suggests that if the Toot Hill tumulus had been historically more elevated, then inter-visibility with Totmonslow may have indeed been possible. That the pylons at Totmonslow can be seen also suggests that, even if the sites themselves are not immediately inter-visible, beacon fires or smoke from either site would have been. A kilometre to the North of the tumulus, within the village of Hollington itself is a higher hilltop, approximately 40m above Toot Hill. From here, Toot Hill, Uttoxeter, Totmonslow and the Toot Hill at Alton are all visible, as is Rykeneld Street. Although this hill is not a tōt site, its location and viewshed cannot be easily discounted. Hollington itself was likely inhabited at the time, appearing in *Domesday* as *Holintune*, and it is not unfeasible that just as Toot Hill was chosen as the site of a rokus, so a sentry would have been stationed on the other side of the village, easily within walking distance of Toot Hill, whereby a watch could be kept over the countryside to the North.



Figure 33: View north from Toot Hill, Alton. Behind the modern farmhouse is the summit at Wardlow. Photograph author's own.

4km north of Toot Hill, Hollington, is another Toot Hill at Alton, near to the hillfort at Bunbury (Staffs. HER 00064) which shows evidence of Anglo-Saxon military occupation and was near the site of a battle fought by Ceolred of Mercia in 816 (NMR: SK 04 SE 13; SK 04 SE 14). What is today known as Toot Hill Woods is in fact just the lower slopes of the hill itself, and is approximately 500m downhill from the peak which is now separated by the B5032 running to the south of Alton village. Unlike sites at Hollington or Uttoxeter, this Toot Hill is unmarked by tumuli, having likely been heavily affected by development and cultivation. Toot Hill has been intensely farmed, to the extent that the hilltop is now largely flat and featureless. A small copse of trees stands on a slight, circular rise at the crest of the hill, although to assume this denotes the location of a former *rogu* is pure supposition.

The view from Toot Hill is, however, extensive, particularly to the North, although somewhat limited to the South and West. From the peak, lines of sight extend to the Weaver Hills and to Farley, where Caudon Lowe above Wardlow is also visible. To the South, Hollington is clearly visible although the Toot Hill tumulus there is completely obscured, and the ridgeline where the Toothill at Uttoxeter is located is discernible over the rooftops of a small modern housing development. To the West, views towards the Totmonslow hilltop are obscured by Gorstyhill, which suggests that a potential *tōt* site here served on a North-South axis, either to survey the edge of the Weaver Hills or relay alerts from Wardlow towards Uttoxeter and possibly Hollington or vice-versa, rather than functioning as an East-West relay station such as at Uttoxeter.

Approximately 6km West of Hollington lies another *tōt* site, Totmonslow. Olof Anderson's 1934 work on the toponymics of English hundreds suggested that this could have not been the case and that the 'Totmon' name element derived from the surname Tatmonn (Anderson, 1934, 147). This name, however, is not attested until the 1190s and then in the form Tateman (*ibid.*). The Old English elements of *Tōt-mon* or *Tōt-mon*n, however, denote a watch-man, and Totmonslow or *Tōt-mon's-hlāw* would thus mean a lookout's hill (Oakden, 1984, 24). Totmonslow gave its name to a hundred, but is now a small hamlet situated along Rykeneld Street between Draycott in the Moors and Upper Tean. The hamlet itself lies at the base of the *hlāw*, which is today accessible on foot from both Totmonslow and Draycott in the Moors.





*Figure 34: View west from Totmonslow towards Blythe Bridge and Stoke-on-Trent. Rykeneld Street passes approximately beneath the pylon visible, left. The arrow indicates the suggestively-named village of Lightwood. Photograph author's own.*

The hill is well situated to provide a tōt site, with a clear view of the Roman road as well as the River Tean, although it is debateable whether the river would still be navigable at this point. Like the Alton Toot Hill, the hilltop at Totmonslow has been extensively cultivated as farm land and there is no visible evidence that a rokus was present here, although this does not entirely rule out that one may have existed (Staffordshire HER 01896). Lines of sight from the top of Totmonslow are somewhat disrupted by tree lines along current field boundaries, but visibility is still extensive. To the East, Totmonslow has extensive lines of sight along the course of the Tean Valley as far as Uttoxeter, which is at the edge of visual range. On the exceptionally clear day on which the survey was carried out, the profile of Tutbury Castle was just discernible on the horizon; this should not necessarily imply regular inter-visibility however, especially in the case of poor weather or low light.

The ridge-line beyond Uttoxeter where Toothill is situated was discernible, although Toothill itself could not be individually recognised amongst the tree line; especially at a range of 15km. Hollington is also visible to the East, although the Toot Hill there is obscured by the hill to its immediate West. However, given that the pylons at Totmonslow are visible from Hollington Toot Hill, it is likely that a beacon fire or smoke

from there would be visible from Totmonslow, especially if the Toot Hill rogus was previously more elevated, and even more so if there were a mound at Totmonslow.

To the West, lines of sight extend along the Roman road to Blythe Bridge and to the South-Eastern extent of Stoke-on-Trent, although much of the city is obscured by hills at Roughcote and Hulme. To the South-West, the area of high ground at Tittensor Chase is discernible behind the high ground at Downs Banks, although this is largely obscured today by a wooded ridgeline at Berry Hill, and the hilltop at Saxons' Lowe is not individually distinguishable. In the direction of Stoke-on-Trent itself, the city is obscured by the ridgeline at Meir, although visible here is the suggestively-named village at Lightwood, now absorbed into the suburbs of Stoke-on-Trent.

Lightwood, the site of a Roman hoard discovery in 1960, has unfortunately seen little archaeological interest since due to the expansion of Stoke-on-Trent's industry, and the toponymy is too lax to firmly categorise it as an Anglo-Saxon site. However, if its name is indicative of a signalling function, its location is perfect in order to link Stoke-on-Trent and Totmonslow. To the North, Cheadle is visible, although the Toot Hill at Alton is obscured by the high ground running between Cheadle and Gorstyhill. The area around Wardlow is, however, visible, as this is at a much higher elevation.

This first arm of the survey illustrates a line of inter-visible tōt sites stretching from Tutbury almost as far as Stoke on Trent, potentially connecting to further sites both to the South and further West beyond Totmonslow. The line appears to include a branch-arm stretching to the North, with intervisibility continuing to weard sites in the Weaver Hills, as well as extending visibility over the Anglo-Saxon settlements at Tutbury, Hanbury, Uttoxeter, Rocester, Hollington, Alton, Tean and Cheadle. These sites also provide surveillance over the River Dove as far as Uttoxeter and the River Tean beyond, as well as Rykeneld Street, with at evidence of at least two artificially constructed mounds granting improved lines of sight over the countryside.

## Route 2: Chester to Wardle

The second area to be included in the visual survey ran from West to East, from the Æthelflædan burh at Chester towards Stoke on Trent, to discern whether a potential signalling chain extended in this direction and linked with the chain running west along the Dove and Tean. The burh at Chester re-occupied the Roman walls in what is now the town centre, and would have required lines of communication to the North-West and the Wirral, and the North East towards the burhs at Runcorn and Eddisbury as well as to the South-East in the direction of Crewe, Nantwich and Stoke on Trent. Approximately 2km South-East of modern Chester is the village of Waverton, listed in



*Domesday Book* as *Waureton*, and the location of a Toothill Croft to the South of the village itself, 6km distant from the walled centre of Chester and thus the tenth-century burh. The Toothill which lends its name to this field appears to possibly be a small mound now bisected by a road at the edge of the modern Waverton Hall and surrounded by a small cultivated copse of trees and ornamental hedgerow. A tōt site here could potentially serve as a directional relay, functioning to convey signals specifically to the South-East over a more general signal from Chester itself, or to alert the local villagers to seek shelter in Chester itself if a beacon elsewhere was lit.

The first *weard* site of the survey is Burwardsley, located 9km South-East of Waverton at the edge of the Peckforton Hills and listed in the *Domesday Book* as *Burwardslei*. With a maximum elevation of 227m, the Peckforton Hills form a high ridgeline running North to South that dominates the Cheshire landscape from the Welsh border as far East as Alsagers Bank east of Stoke-on-Trent. Elevated between 150-190m, Burwardsley and Burwardsley Hill's lines of sight to the East are blocked by the higher ground running between Raw Head and Stanner Nab, however they do have extensive lines of sight to the North and West. Burwardsley Hill, a kilometre south-west of the village is bounded to the West by a substantial wooded earthwork bank; however, this may not be the main beacon site.

Indeed, less than 500m to the South of what is now Higher Burwardsley is a small, regular and likely artificial mound visible both from the road and aerial photography. Although not immediately visible from the ground, aerial photography reveals a regular, round shape truncated on the downhill slope by a cultivated stand of trees. This potential rokus base is of a similar height to that at Toothill, Uttoxeter; approximately 1.5-2m high, with a large, flat top, but is somewhat wider than its namesake, with its crest approximately 40m in diameter, although this is affected somewhat by the slippage on the downhill face of the mound. It is likely that this mound acted as a surveillance and signalling site attached to the *weard* site in the hillfort less than a kilometre along the ridgeline. Unfortunately, LIDAR coverage of the Cheshire Plain ends at the foot of this ridgeline, meaning no scans of Burwardsley are available. However, from aerial and satellite photography from sources such as Google Earth, the artificial shape is discernible in the landscape (see *Fig.36*).



Figure 35: The probable *rogus* at Burwardsley. Photograph author's own.

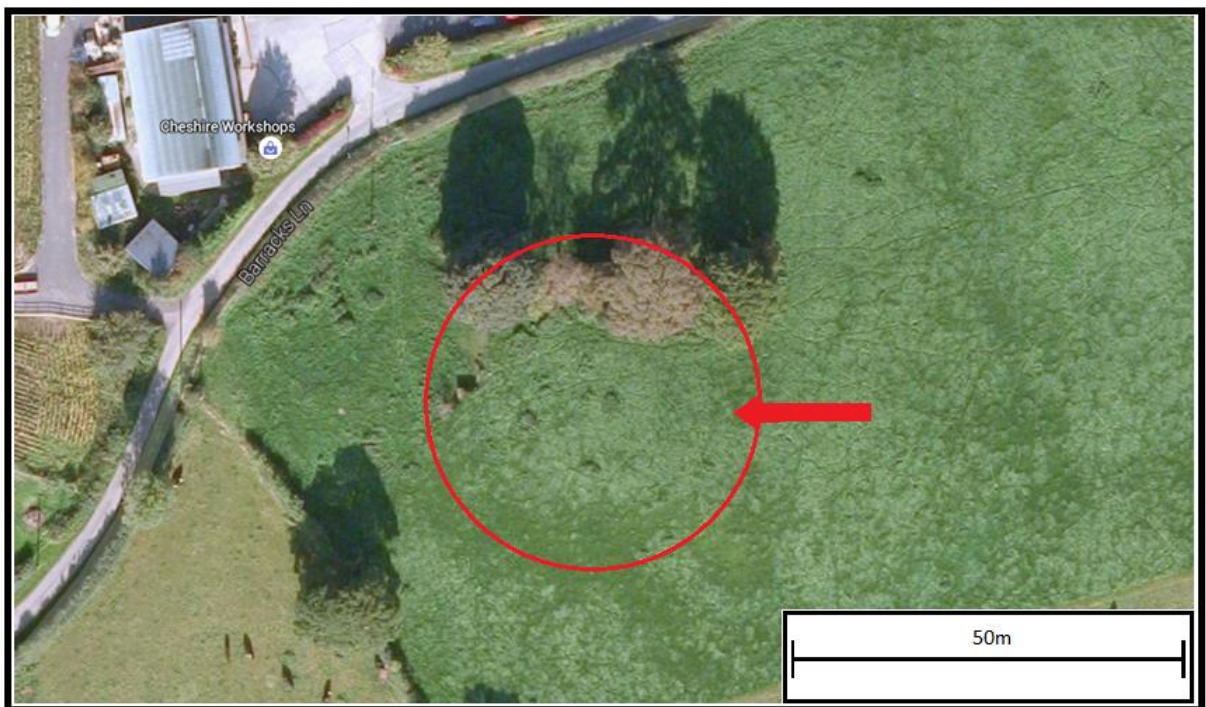


Figure 36: Aerial photography illustrating the regular shape and dimensions of the Burwardsley *rogus*. Google Earth (2016).

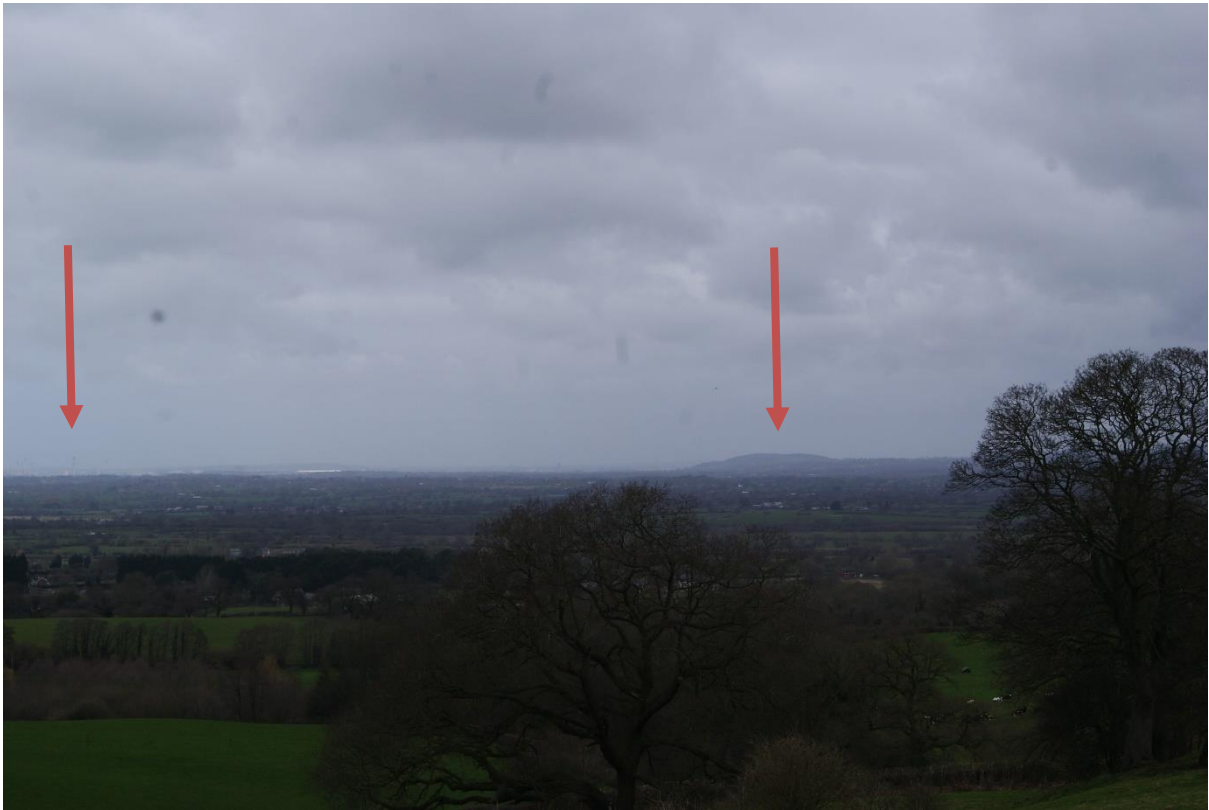
This mound provides a particularly extensive viewshed. To the west, lines of sight extend beyond Chester to the Wirral itself. The tower of Chester town hall and the steeple of the city's Holy Trinity Church make the site of burghal Chester immediately recognisable at even at a range of over 15km and beyond the city, the Dee estuary near Flint, Connah's Quay and its steel works are all clearly visible to the naked eye. To the north of Chester, Ellesmere Port and the refinery at Stanlow are also extremely clear, as is Helsby to the east and the mouth of the Mersey. Helsby Hill is another *tōt* site, also known as Teuthill, the site of a bivallate Iron Age hillfort with indications of later Anglo-Saxon occupation and re-fortification with which visual communication may thus have also been possible (Cheshire HER 1007/2; NMR: SJ 47 NE 4).



*Figure 37: West from Burwardsley. Arrows indicate the Dee Estuary (left) and Chester (right). Photograph author's own.*

North of Burwardsley, Beeston Castle is immediately visible on its outcrop at the end of the Peckforton Hills. The hill fort that preceded the castle could thus have been in clear visual communication with Burwardsley (Hough, 1982, 22-30). North-west of Burwardsley, the town of Tattenhall is visible at a distance of only 3km. Tattenhall is a known Anglo-Saxon settlement, appearing in *Domesday* as *Tatenale*, and from here, Burwardsley and Beeston are both highly visible, making it likely that the hill fort at Beeston would have been a site of refuge for the population if Burwardsley Hill were not also fortified.

To the north beyond Beeston Castle, the signal masts at both Kelsborrow Castle outside Kelsall, and Fire Tower next to Eddisbury Hill are both visible. This would suggest that Burwardsley could have been linked with the burh at Eddisbury as well as Chester, as although the hill fort at Eddisbury is not visibly clear, it is identifiable at this distance, and the easily visible smoke from the Stanlow Refinery at a range of 20km suggests that signal fire or smoke between Burwardsley and Eddisbury, at a range of 13km, would have been seen.



*Figure 38: North-West from Burwardsley. Arrows indicate the modern Stanlow Refinery (left), on the Mersey, and Teuthill at Helsby, overlooking Runcorn (right). Photograph author's own.*

The third identified Cheshire burh, Runcorn, lies beyond effective visual range of Burwardsley, although on the clear day of the survey, it could just be identified beyond Helsby with the aid of binoculars. This, however, was the modern industrial city, and with the naked eye, it is highly unlikely that tenth-century Runcorn would have been in direct visual communication with Burwardsley, instead communicating via Teuthill at Helsby. Kelsborrow Castle, also identifiable from its signal masts, is similarly to Eddisbury also the site of an Iron-Age hill fort; a promontory fortification which overlooks the Roman road running east from Chester towards Kelsall and Northwich. It is possible that, like Beeston, this hill fort was re-used as a refuge from Viking attacks during the ninth and tenth centuries, and the 1906 discovery of an Anglo-Saxon sword within the defensive enclosure at the hilltop has been used to evince a Mercian re-occupation of the site (Roeder, 1906, 116-117). The hilltop at Kelsborrow is visible at a



range of 11km, and visual communication would thus likely have been possible if indeed the site had been re-occupied as a Mercian defensive site.

To the east of the Peckforton Hills, 6km East of Beeston Castle is the village of Wardle, another *weard* site which appears in *Domesday* as *Warhelle* (Dodgson, 1981, 381). Today, there is little at Wardle to suggest any functionality as a watch-post; although the village lies astride the Chester Road, now the A51, it sits in an area of largely flat land which stretches from the edge of the Peckforton Hills beyond Crewe and Nantwich and is distinguished largely only by the junction of the Shropshire Union Canal which lies to the North-East. Historical Ordnance Survey map records however indicate a different topography that has since been erased. Maps from 1875 and 1890 indicate the presence of a series of mounds and hills to the North-East of the modern village, surrounding the site of Wardle Hall (CHER 307). Many of these smaller mounds are likely to be spoil heaps from nearby clay pits but a large, but surround a large, regular-shaped mound recorded as Castle Hill (Dodgson, 1971, 324). There is no other evidence to suggest the presence of a castle at Wardle, and none is recorded in *Domesday Book*, which does not discount the possibility that a motte was constructed here but does suggest the possibility that this mound was an earlier defensive feature that had been re-used and perhaps misnamed.

Unfortunately, the entire area around Wardle Hall was cleared and flattened for the construction of RAF Calveley in 1942, and redeveloped again following the airfield's closure in 1946 as a mixture of agricultural land and a substantial industrial estate (Willis and Holliss, 1989, 38). The viewshed from Wardle is extremely limited by topography although it is possible to extrapolate to some extent how improved elevation would have affected this. From the site of the current industrial estate, the Peckforton Hills are visible although Beeston Castle itself is obscured by a large warehouse tower. To the south-east, Crewe and Nantwich can just be seen, and beyond them a far ridgeline can also be seen, likely that at Alsagers Bank, however without any elevated position, views to the South and East are extremely limited.

To the east of Wardle, the signal chain appears to falter somewhat, at least based on toponymic results. Despite multiple Anglo-Saxon settlements such as Nantwich, Wybunbury, Betley and Madeley, there are no recorded *tōt* sites or *weard* sites until the chains from the Dove and Tean Valley and Staffordshire are reached around Stoke-on-Trent. Topography, however, provides a solution in the form of the extended ridgeline running to the West of Newcastle-under-Lyme and Stoke-on-Trent. Elevated in places over 200m, the high ground ranges approximately 8km between Bignall End and Chesterton in the north and Madeley in the south and dominates the landscape in all

directions with an extensive viewshed encompassing the city of Stoke-on-Trent to the east and reaching the Peckforton Hills to the west. The mere presence of hilltops with extensive viewsheds should of course not be taken to imply the presence of a *tōt* site alone, especially given the lack of toponymic evidence. The ridgeline and surrounding countryside is, however, not only surrounded by Anglo-Saxon sites, but also host to a series of hill forts or potential hill fort sites that may have played an important civil defence role in a model of defence in depth (Baker and Brookes, 2013, 118). At the north of the ridge lies the town of Audley, recorded as *Aldidelege* in *Domesday*, and the still-inhabited Roman site at Chesterton, which lies upon Rykeneld Street (Wardle, 2002, 6). Between these sites lies Bignall Hill, at an elevation of 200m, with a commanding view shed to both east and west.

Bignall Hill is now site of the Wedgewood Memorial, and was previously occupied by several colliery shafts, but excavations in 1921 prior to the expansion of the Great Oak mine found evidence of a hill-fort occupied from the early Bronze-Age until at least the Iron Age, including a round barrow (Davies and Brown, 2013, 19-21). With a round barrow in such a prominent position, the potential of its re-use in a *tōt* site such as at Uttoxeter's Toothill is an intriguing possibility. Although the re-use of this hill fort and the repurposing of its barrow as a *rogus* by ninth- or tenth-century Anglo-Saxons remains conjectural, the situation of Bignall and its command of the countryside overlooking not just Audley and Chesterton, but also Balterley, Dimsdale and Bartholmley, would place the hill fort here in a prime location as a civil defence hub with road links to reinforcement from both Chester and Stafford, as well as sitting on Rykeneld Street leading to Derby and Ryknild Street to the east.

Beeston Castle is clearly visible from the Bignall Hill ridge-line, although given the distance between the two sites it is possible that Wardle served as an intermediate relay between them. The extensive viewshed allows for surveillance over the countryside as far as Crewe as well as a signalling point to local settlements. To the east, lines of sight extend from the top of the hill across the entirety of Stoke-on-Trent. Although now obscured by the city, a *tōt* site at the Bignall hill-fort would have been able to observe not only the Anglo-Saxon town, or *Stoc*, but also the Roman fort at Chesterton, Rykeneld Street and potentially the Trent as well.



*Figure 39: West from Bignall Hill - Beeston Castle (Left) and Wardle, Audley, Crewe (Centre) and Nantwich (Right). Photograph author's own.*

On the ridge-line at the eastern edge of Stoke-on-Trent, a series of electricity pylons allow for the identification of Totmonslow and Blythe Bridge. The hilltop at Totmonslow is partially obscured by high ground at Boltongate and Meir; however, the town at Blythe Bridge is clearly visible behind the masts at Fenton and the Totmonslow pylons can be seen just to the east of the town. This suggests a level of intervisibility between the sites, especially when factoring in the visibility of signal fires or smoke. The presence of an unidentified signalling point in Stoke-on-Trent itself at Lightwood, like the Beacon Hills at Stafford and Lichfield, may have also bridged this gap, although this is purely supposition. Lines of sight to the South extend along the high ground towards Alsagers Bank but are not extensive because of this higher ground and intervening woodlands. Behind this high ground however, the Maer Hills are clearly visible at a range of 12km.

The Maer Hills lie around 5km south of the southern end of the ridge of high ground which begins at Bignall Hill, and are host to a variety of potential civil defence sites. An outlying hill fort sits near the road from Cheshire via Wardle and Wybunbury at Baldwin's Gate, potentially a site of refuge for the people of Madeley, 4km to the north. The Maer Hills are host to a substantial hill-fort at Berth Hill and are also toponymically interesting, containing a War Hill, a Bury Hill and a Camp Hill, as well as a significant number of tumuli. The hill fort at Berth Hill was originally an Iron Age site, defended by

multiple earth ramparts expanded and upgraded at least once, and likely in Anglo-Saxon use, at least as a Mercian site during the seventh century (Erdswick, 1844, 116; Page, 1908, 332; Staffordshire PRN 23).



*Figure 40: South-East view from Bignall Hill. Arrows indicate Stoke-on-Trent (left) and Totmonslow/Lightwood (right). Photograph author's own.*

Indeed, Berth Hill's name suggests an Anglo-Saxon use of the site for its defensible enclosure, and if this use continued into the Tenth Century then the Berth Hill hill-fort would have been a prime site for a local civil defence node. War Hill, immediately next to Berth Hill is itself a potential *weard* site, supported by the neighbouring 'Watching Field', and if any of the tumuli here had been repurposed in a manner similar to Uttoxeter's Toothill barrow then they would likely have provided useful vantage points (Hartshorne, 1841, 174). Unfortunately, the Maer Hills today are heavily forested, including the areas of the Berth Hill hill-fort and War Hill, and so lines of site from here are severely disrupted. The Alsagers Bank ridgeline, however, is visible, as is the high ground around Tittensor Chase to the South.

The evidence of a network running east from Chester is less definite than that in the Tean Valley. The clear line of inter-visible, *tōt* sites is instead a mixture of name-elements and the paucity of *tōt* or *weard* sites between Wardle and Stoke-on-Trent leaves a gap in a potential network, however the particular topography of the area and the use of hill-forts suggest a network could still be extant.



### Route 3: Watling Street to Stoke-on-Trent

The third area of the survey was located between Watling Street and the Maer Hills, along the route of the possible Roman road via Stafford suggested by Carver (Carver, 2010b, 65). This area contains no tōt or weard sites, but the toponymic survey did reveal a series of 'beacon' sites as well as Pire Hill confirming approximately to both the route of the road North as well as the course of the River Trent. The burh at Stafford was a de novo construction, sited for its strategically important location, and a significant part of this must have been its equidistance between Watling Street and Rykeneld Street, and the resulting ability of the fyrd to respond to attacks and raids approaching along either avenue. Because of this, a signal chain can be expected to link Stafford both to Watling Street and the settlements at Penkridge and Cannock to the South, and to Rykeneld Street and the settlements at Stone, Tittensor and Barlaston, as well as potentially the Maer Hills and Stoke-on-Trent to the North.

The first site to be surveyed in this stage was Beacon Hill in Penkridge, 2.5km North of Watling Street. The historical settlement of *Pencersæte* was originally further south near the Roman fort at Rowley Hill, identified as *Pennocrucium* which derives from the Brythonic *penncrug* or 'chief hill' (Cameron, 1996, 33). By the tenth century it was known as *Pencric*, and named by Edgar as a *loco famoso* in a charter of 958 (S667).



*Figure 41:* North view from Beacon Hill, Penkridge. Arrow indicates Beacon Hill, Stafford. Photograph author's own.



*Figure 42: View south from Beacon Hill, Penkridge. Arrows indicate Tettenhall within the modern boundaries of Wolverhampton (left) and Watling Street, obscured behind the modern treeline (right). Photograph author's own.*

The hill is the north-eastern end of an area of high ground north of Watling Street, elevated to 100m, sufficient to provide Beacon Hill with commanding lines of sight over the surrounding countryside. The hill is occasionally re-used for its original purpose – it was the site of a celebratory beacon during the 2012 Jubilee celebrations – but is today heavily cultivated farmland, with the crest of the hill having been recently seeded at the time of the visual survey, and as such there are no visible remnants of prior landscape features. Beacon Hill has a clear line of sight with Beacon Hill at Stafford, 13km to the North, immediately identifiable at this range due to a neighbouring wind turbine, and the city of Stafford itself. To the East, the town of Penkridge is extremely clear, as are the A449, M6 and railway, which suggests that any prior roadway linking Stafford to Watling Street would also have been visible from this point. Farther the east, Cannock Chase can also be seen. To the South of Penkridge, Watling Street can be easily seen, including the junction with the A449, and beyond that the city of Wolverhampton is also clear. This suggests that as well towards Stafford in the North, Beacon Hill would also have been in visual communication with Tettenhall in Wolverhampton, 13km to the South, where in 910 Ealdorman Æthelred led a joint West Saxon and Mercian force to victory against a Danish army attempting to ‘ravage over Mercia’ (ASC, MS.A, s.a. 910, Whitelock, 1961, 61). Beacon Hill in Stafford sits almost directly north of that at Penkridge, 3km north-east of the medieval town centre, although today at the edge of

the city adjacent to both the hospital and the university. The hill itself is now used primarily for sheep farming with some crop fields on the northern face, although the hilltop itself has been spared from wide scale landscape changes through its preservation as a buzzard reserve. While this ensures that the hilltop largely retains its original elevation and thus maintains its historical viewshed, it does however mean that the hilltop is heavily forested with woodland cultivated to provide the buzzard population with adequate nesting sites, and so this viewshed is significantly disrupted, especially from the crest of the hill.

Although it is largely obscured by woodland today, the top of Beacon Hill is formed by an elevated, regular mound, distinct from the rest of the hill in sudden elevation of approximately 2m and with a diameter of 60m. This makes the mound here significantly larger than those at the Toot Hills in the Tean Valley sites or that at Burwardsley, and its shape and height may be the result of subsidence of surrounding farmland rather than that of specific construction. However, the woodland extends for a further 60m on the southern slope of the hill without disrupting the shape of the mound, and there are large areas of smaller rock around the base of the mound which suggest that this may have been a specially-constructed rokus. Certainly the crest of Beacon Hill extends a significant viewshed in all directions and would have provided a prime surveillance point for civil defence.



*Figure 43: Beacon Hill, Stafford. Photograph author's own.*





Figure 44: View south-west from Beacon Hill, Stafford, showing the location of the *burh* on the River Trent and Roman road (right arrow) and Beacon Hill, Penkridge (left arrow). Photograph author's own.



Figure 45: North from Beacon Hill, Stafford. Arrow indicates Pirehill. Photograph author's own.

To the immediate south of Beacon Hill is Stafford itself, which is clearly visible to the edge of the city. Both the A449 and the M6 are extremely clear to the north, west and south of the hill, as presumably would be the Trent were it not obscured by Stafford buildings, which suggests that all main approaches to the *burh* could have been observed and monitored from this point. Beyond the limits of Stafford, following the path of the A449 allows for the identification of Penkridge and of the Beacon Hill there, with strong inter-visibility implying visual communication between the two sites. To the East, lines of sight go as far as high ground extending north from Cannock Chase and are not overly extensive however to the West they extend as far as Shropshire, with the Wrekin distinctly and clearly visible. This should not be taken to imply that Beacon Hill in Stafford was in visual communication with Telford or even beyond to the important Anglo-Saxon mint town at Shrewsbury, and indeed it is more likely that this would have occurred along the route of Watling Street via a potential beacon site at Bishop's Wood, however it is theoretically possible that communication could have occurred over this distance. To the north of Beacon Hill, the A34 and the M6 are visible as far as Aston-by-Stone and the site of another 'beacon' site, Pirehill. Beyond these, the area of high ground at Tittensor Chase is also just visible; however, at this range it is indistinct. Pirehill itself is visible in an area of high ground between the motorway and the A34 at a range of 7.5km North-East of Stafford.



Figure 46: North view from Pirehill. Arrows indicate Bury Bank, Tittensor (left), Stoke-on-Trent (centre) and Bignall Hillfort (Right). Photograph author's own.

Like Totmonslow to the North East, Pirehill gives its name to a hundred and is known as a moot meeting-point and rally field for the local area, its name possibly also denoting a look-out point or 'peering hill' (Staffs. HER 03894; Anderson, 1934, 33). The hill today is part of an extended area of high ground between Whitgreave and Stone to the South and North, and the M6 and A34 to the West and East respectively. The area of Pirehill is now the site of several farms and is heavily cultivated, as well as the site of Staffordshire Fire Service's modern headquarters, and so little of the original topography remains to be seen. At North Pirehill Farm, some evidence remains of a potential mound, although this has been substantially degraded by the regular use of farm machinery and the passage of dairy cattle to and from pasture. Nonetheless, the viewshed remains substantial. Beacon Hill at Stafford is immediately visible from Pirehill, identifiable once again by the neighbouring wind turbine at Blackheath Lane, confirming the inter-visibility between the two sites. The potential beacon site at Beacon Bank, 7km to the East near Milwich, is obscured by high ground near Butterhill Bank, although this does not entirely rule out communication if fires or smoke were to be visible. To the north, lines of sight are considerable, and the city of Stoke-on-Trent is partially visible as well as multiple chimneys, steeples and pylons. Beyond this, the high ground at Alsagers Bank, potentially as far north as Bignall Hill, is visible, whilst closer to Pirehill, the hill fort at Bury Bank and the high ground at Tittensor Chase where Saxons Lowe is located can also clearly be seen.

7km north of Pirehill is Tittensor, originally flagged as a likely false positive in the toponymic survey. Tittensor appears as *Titesoure* in *Domesday* and is likely not toponymically a *tōt* site. 2km south of the village in the high ground at Tittensor Chase, however, is the Bury Bank hill fort on a hill overlooking Stone, and neighbouring that is a large tumulus at Saxons Lowe. Bury Bank is a bivallate Iron Age hill fort with surviving ramparts, and although no evidence of later remodelling of its defences has been found, it has been associated with Mercian use in the seventh century, and its name suggests a continued Anglo-Saxon use of the site (Staffs. HER 00022; Page, 1908, 342-344; Cocroft et al, 1991). With its situation it would have certainly provided a useful defensive node in an Anglo-Mercian defensive network. The neighbouring tumulus at Saxon's Lowe, or *hlāw*, has long been considered an Anglo-Saxon barrow possibly connected with the hill fort, however excavations in 1958 found some Bronze-Age pottery near the site likely from inhabitants of the hill fort, but no evidence of burial or deposition to show the tumulus as a barrow (Page, 1908, 181; Staffs. HER 00070; NMR: SJ 83 NE 3). The tumulus is, however, artificially constructed and originally regular, with a diameter of 35m, although this has been reduced on the north face by sandstone quarrying.





*Figure 47: Saxons Lowe Tumulus at Bury Bank Hillfort, Tittensor. Photograph author's own.*

With no evidence of it being a barrow, and toponymically Anglo-Saxon in origin, Saxons Lowe appears to be a prime example of a *rogus*, purpose-built to serve alongside the Bury Bank hill fort as a *tōt* site and signalling point. The tumulus at Saxons Lowe is today surrounded by heavily-cultivated woodland, which restricts lines of sight in some directions, most notably to the west and south-west; however its viewshed is still considerable. To the south, both Beacon Hill at Stafford and Pirehill are clearly visible suggesting that visual communication could have occurred with both sites, although much of Stafford is largely obscured and identifiable once again only through the top of its neighbouring wind turbine. The countryside beyond Stafford is also visible, almost as far as Cannock Chase, although this is at extended range and is not clear. To the North and East of Saxons Lowe, extensive lines of sight cover much of Stoke-on-Trent, providing surveillance not only over the Anglo-Saxon town at *Stoc*, but also over the Trent, Rykeneld Street and its junction with the Stafford road. Beyond Stoke-on-Trent itself, the Wedgewood Memorial at Bignall Hill is also clearly visible which shows that visual communication between the two sites was possible at a range of 15km. Beyond the eastern edge of Stoke-on Trent, areas of Lightwood and Blythe Bridge are visible beyond the high ground at Roughcote and Hulme, and the Totmonslow hilltop is just visible although slightly obscured by intervening high ground and ground haze. At a range of 10km, however, signal fire or smoke would be clearly visible, especially without intervening modern housing developments and industrial

parks such as that at Longton. To the West, the Maer Hills are also visible. Evidence shows, therefore that Saxon's Lowe was not only inter-visible with the Stafford chain of beacon sites but also with *tōt* sites in the Tean Valley and Bignall Hill's potential links with Cheshire.

More so even than the *tōt* sites along Rykeneld Street, the distribution of beacon sites around Stafford provides a linear series of observation and communication points along the length of main travel routes to and from the burh with clear inter-visibility as well as commanding lines of sight over the local countryside and important strategic points. To the South, Stafford is connected to Watling Street, where Beacon Hill at Penkridge provides not only surveillance over the major road and its junction, but also provides visual communication with other potential sites along Watling Street, as well as with Tettenhall to the South. This provides possible visual communication links with the other *Æthelflædan burhs* at Bridgnorth and Tamworth, as well as the important Episcopal centre at Lichfield and potentially as far as the mint town at Shrewsbury.



*Figure 48: North from Saxons Lowe. Arrows show Bignall Hill (L), Stoke-on-Trent (C-L), Lightwood (C-R) and Totmonslow (R). Photograph author's own.*

To the North, Stafford is linked to the hundred-seat at Pirehill, known as a mustering ground (Anderson, 1934, xxxiii and 144), and via that to Bury Bank hill fort and the *tōt* site at Saxons Lowe. From its vantage point, this would have been able to communicate to the burh at Stafford any movement along Rykeneld Street approaching



from the West, East or North, while the hill fort itself provided a site of temporary refuge for the local populace. With inter-visibility between Saxons Lowe and Totmonslow and Bignall Hill, Stafford was also thus connected with the lines of communication running along Rykeneld Street from both Chester and Derby, and as such the Staffordshire *fyrð* would have been able to respond quickly to threats approaching from all directions.



Figure 49: South view from Saxons Lowe, Tittensor. Arrows indicate Beacon Hill, Stafford (left), and Pirehill (right). Photograph author's own.

## Discussion & Conclusion

The intervisibility of sites selected for this survey across Cheshire and Staffordshire is illustrated below (*Fig.50*). What is immediately clear from this map is the full extent to which these toponymically significant sites can be seen to also be linked in the field, and the clear shape of the network as alluded to by *Fig. 24*. It is significant that, even allowing for approximately a thousand years of changing landscape use, erosion and agricultural activity, the series of *tōt* and *weard* sites in both counties are still largely intervisible, albeit with some allowance for modern construction and cultivation. It is also important that this survey showed the importance of topography in landscape control, illustrating that what may appear to be sizeable gaps in the network proposed by *Fig. 24* are in fact negated by the extensive viewsheds of some of the more elevated sites such as Burwardsley or Uttoxeter's Toothill. The extent to which the sites are intervisible and the lines of sight they can be proven to show over the rivers and Roman roads of the two counties, also corroborates the theory that these sites are

intrinsically linked to a network of surveillance along these major routes. Crucially, this indicates that *tōt* and *weard* toponyms are not randomly distributed as attendant but isolated look-out posts for individual settlements, and are distinct from *burh* related toponyms.

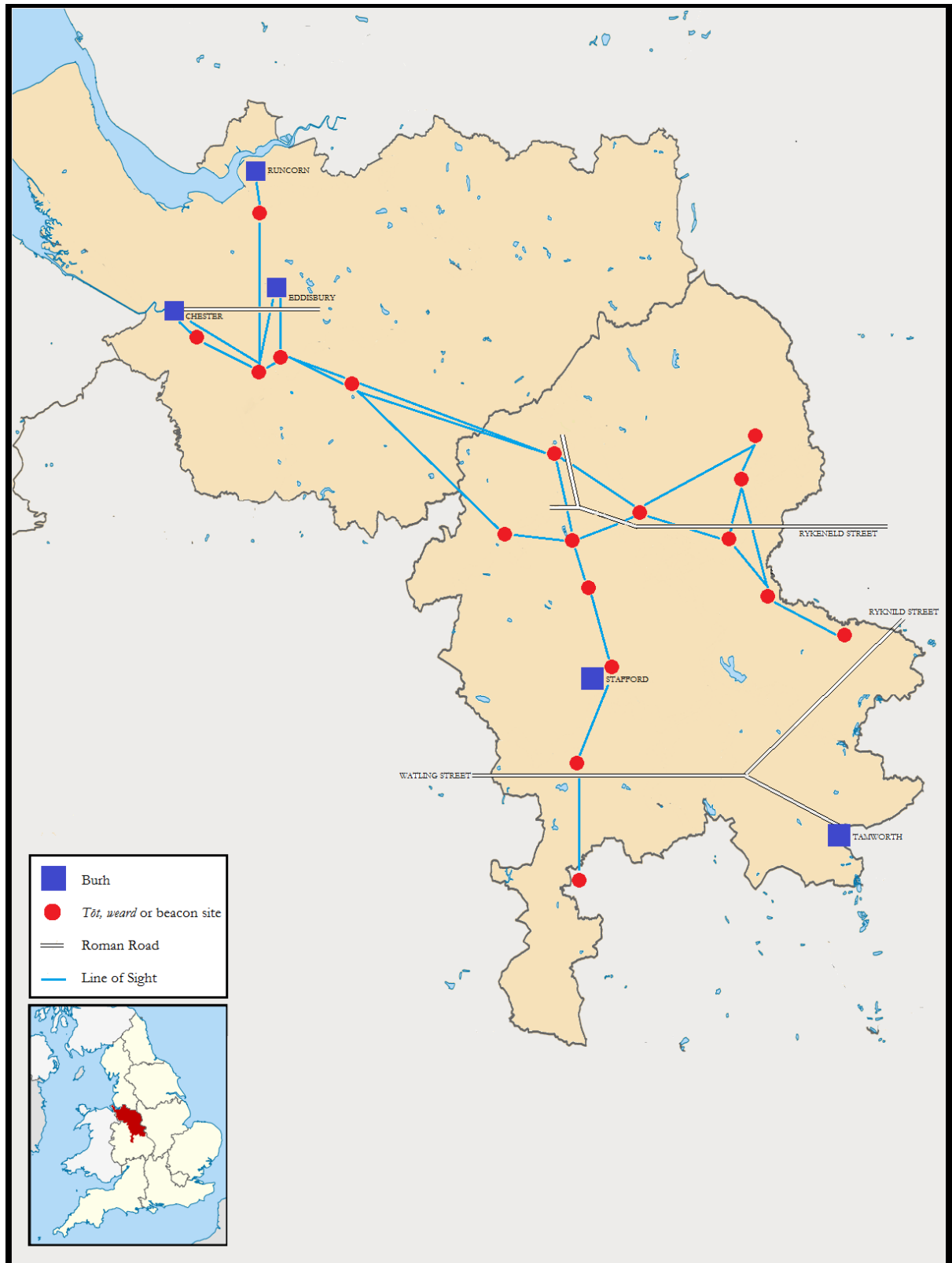


Figure 50: Inter-visibility of *tōt*, *weard* and beacon sites in Staffordshire and Cheshire based on fieldwork by the author.

Signal fires leave little physical trace upon the landscape, especially in areas subject to intense agriculture or substantial later industrial development, and thus providing concrete physical archaeological proof that this network of sites was originally instituted by Æthelflæd for tenth-century signalling is particularly difficult. That a watch system existed along the course of Rykeneld Street during the Roman occupation of Staffordshire, as suggested by Roman pottery sherds at Uttoxeter's Toothill, is always a possibility, despite the Old English toponyms prevalent throughout the network. Neither is it impossible that this system was initially established by a growing Mercian kingdom, perhaps during Offa's eighth-century expansion and fortification of Mercia. However, *Fig. 50* shows a clear correlation between these intervisible sites and the Mercian frontier with the Danelaw, a corroboration of the initial trend seen in *Fig. 24*. Indeed what can be seen is a clear network of sites along the major military front lines and major routes specifically of tenth-century Mercia. Not only does this network provide surveillance of the routes from the Danelaw along Watling, Rykeneld and Ryknield Streets and the rivers Trent and Dove, but also watches over the rivers Mersey and Dee, the Aire Gap and the Roman road network of the Cheshire Plain. Any significant Anglo-Saxon presence in this area, particularly one which would require any defensive infrastructure, can be effectively post-dated to after 907, given that Chester was recorded to be completely desolate in 893, and the Cheshire Plain shows evidence of rapid colonisation in the early Tenth Century (ASC MS.A and D, s.a. 893 and 907, Whitelock, 1961, 56 and 61; see Chapter 5).

As *Fig. 50* illustrates, it is also important to the dating of this network that Chester, Eddisbury, Runcorn and Stafford appear to be fully integrated into the series of intervisible sites. Archaeological evidence demonstrates a lack of occupation at Stafford and Eddisbury prior to Æthelflæd's fortification (see Chapters 1 and 2), and the vacant nature of Chester and Runcorn is also suggested by the *Anglo-Saxon Chronicle*. Although no visual surveying was carried out in their areas of the network proposed by *Fig. 24*, the intervisibility of sites in *Fig. 50* and the integration of the Æthelflædan *burhs* suggest that Tamworth, Bridgnorth and Chirbury are all also highly likely to be integrated into the network of *tōt* and *weard* sites. This integration is highly unlikely for any series of sites which predates the Tenth Century. Further corroboration is provided to some extent by the discovery of sherds of Stafford Ware found at or near many of the sites shown in both *Fig. 24* and *Fig. 50*. Apparently exclusively military in use, these discoveries are suggestive of a tenth-century Mercian military presence stationed near many *tōt* and *weard* sites (see Chapter 5, below).

If we can assume the same level of connectivity and intervisibility between sites in Shropshire and in other areas of Cheshire and Staffordshire as that seen by the sites

visually surveyed and represented in *Fig. 50* then a very sophisticated network appears, and one which greatly supports Baker and Brookes' theories of defence in depth and landscape usage in Anglo-Saxon civil defence. A network of sites with a clear level of infrastructural development provides surveillance and early warning all along the vulnerable frontier areas of tenth-century Mercia, before combining and moving 'inland' along main transport routes in order to connect with garrison sites. This network not only links *burhs* with one another to provide for communication and mutual defence, but also with a wider series of settlements, as well as hillforts and areas with extant Roman defences which show indication of Mercian military re-occupation. This is strong evidence for Baker's theory of local refuges and strongholds to which local populations could flee before being relieved by a highly mobile burghal garrison force, and is also substantiated by the historical evidence of the effectiveness of such a system in both 911 and 914. It is likely that a West Saxon equivalent can also be seen successfully defending Maldon from capture in 917 (ASC, MS.A, s.a.917, Whitelock, 1961, 65-66). It is likely that the difference between *tōt* and *weard* toponyms is suggestive of subtly different functions within the same network, rather than denoting separate phases of a system. *Tōt* sites are far more commonplace, and suggestive of surveillance, whereas *weard* implies an additional protective meaning. From the association found with *weard* sites next to areas known for hillforts, such as Burwardsley in Cheshire and Burwarton in Shropshire, it is possible that a *weard* site denoted a refuge to which the population could flee when warned, while a *tōt* site was simply an observation and relay site. This would explain the prevalence of *weard* sites in Cheshire, where there was not a prior history of Anglo-Saxon occupation to have already named such sites. That such a clear network of sites with surveillance over major routes and the possibility of visual communication exists, and is integrated so heavily with the Æthelflædan *burhs* suggests that these sites were clearly envisaged as part of a planned network, and shows a level of organisational sophistication previously overlooked.

#### IV: Burghal Minting: Coinage and Context

As well as the development of the burghal network, the territorial expansion of the Kingdom of the English in the first half of the tenth century was also marked by a concomitant rapid expansion of the minting network. In the West Midlands, these new mints were located not only in the pre-existing civic centres, but also under the aegis of the newly-founded Æthelflædan burhs, and spread new currency throughout the areas brought under territorial control by those centres. The currency which developed during the tenth century underwent significant changes in design and organisation from that which had preceded it, and can be seen to reflect the changing economic and political concerns of the kings who issued it. By analysing both the new currency and the distribution of mint sites and coin finds, a numismatic approach can reveal otherwise hidden information, not only about the economic strength and liquidity of the nascent Kingdom of England, but also the ways in which newly consolidated territories were integrated into the country as a whole, and the impact that the burghal system had on the development of both formal and informal networks developing in their hinterlands.

Although they played a prominent role in the establishment of Mercian and later English authority throughout the West Midlands, as defensive bastions, anchors of colonisation such as in Cheshire, and as bases for the conquest of the Danelaw, the Mercian *burhs* are noticeably different in their organisation from those of Wessex and appear to often lack a civil function (see chapters 1 and 2). Nonetheless, the *burhs* at Chester, Tamworth, Stafford, Warwick and *Weardbyrig* all developed a minting function during the course of the tenth century. A numismatic study of these sites will illustrate the extent to which these were integrated into a wider economic network, and attempt to determine the extent to which this was more an economic or political phenomenon, as well as establishing why these sites were selected over the other *burhs* and whether they remained economically relevant throughout the tenth century.

For comparison and context, other significant Mercian sites have also been included in this study: The towns of Hereford, Gloucester and Worcester were all fortified by Ealdormen Æthelred and Æthelflæd, and were important civic centres, but are not explicitly listed amongst the sites listed in the Mercian Register as Æthelflædan *burhs*, despite Worcester's inclusion in the *Burghal Hidage*. Indeed, as seen above, the *Mercian Register* appears to differentiate between Hereford and Gloucester and *burh* sites in 914. These sites will provide a civil context against which the *burhs* can be measured. Also included are Derby and Leicester, captured by Æthelflæd in 917 and

918 respectively, which passed into Mercian control and both became mint sites although cannot be counted as 'Mercian *burhs*' in the traditional sense. These sites will provide an insight into the ways in which captured territory was integrated into the territory and networks of England, and may also reveal the extent to which they became 'Mercian' or 'English'. In 918, Æthelflæd received oaths from the people of York 'that they would soon be under her direction', which has led to that city occasionally being erroneously counted as a Mercian burh (*Mercian Register*, s.a.918, Whitelock (ed.), 1961, 67; Carver, 2010b, 2). Æthelflæd, however, died before her forces could reach the city to exercise this nominal control, and so despite York's status as a prominent mint site, it will also not be included here. Other sites are also omitted from this survey: Shrewsbury began minting activity during the reign of Æthelstan, and fifty-six coins from the town are known to the *Sylloge of Coins of the British Isles* from throughout the tenth century, mostly resulting from the Chester hoards. Mint activity at Shrewsbury appears to have been of consistent but low intensity, however it is not a part of the Mercian burghal system and there is little definitive evidence that the town was fortified directly by Æthelflæd and as such has not been included in the survey. There is no surviving numismatic evidence from the *burhs* at *Bremesbyrig*, *Scergeat*, Bridgnorth, Chirbury, Eddisbury, or Runcorn, and therefore these *burhs* cannot be included in the survey. Given the military nature of the *burhs* at Eddisbury, Chirbury and Bridgnorth seen in Chapter 2, it could well be expected that such sites would not host minting activity, as they do not appear to have maintained other civil functions. However, surviving evidence shows that limited minting did occur at *Weardbyrig*, presumably another 'military' *burh* given its apparent lack of survival, and so this assumed lack of activity at other Mercian *burhs* could also be the result of a limited output combined with a low survival rate and lack of discovery of finds from those sites.

When Alfred succeeded to the throne of Wessex in 871, minting in England was confined to five sites – Canterbury, Rochester, London, Ipswich and Southampton – yet by the reign of Æthelstan, between thirty-five and forty mints were in operation throughout the country (Blackburn, 1996, 150; Naismith, 2013b, 44-74; Molyneaux, 2015, 123). Behind this widespread expansion of minting was Alfred's construction of the burghal network. As the fortified sites accumulated both military and civil functions, so they served as economic hubs chosen to play host to a new series of mints to ensure a continuation of currency in the face of Viking aggression or other calamitous events. This diversification soon proved a worthwhile investment; in the closing years of Alfred's reign, the number of London moneyers dropped from at least nine to a mere one, most likely as a result of the great 'mortality of cattle and men'

which swept through the South East between 893 and 896 and claimed ‘many of the best king’s thegns who were in the land’ including the Bishop of Rochester and the ealdormen of Kent, Essex, Sussex and Hampshire (ASC, MS.A, s.a.896, Whitelock, 1961, 57; Lyon, 2001, 75). As the traditional minting centres of the South East went through cycles of decline and recovery, however, the new mint sites developed in the West Midlands underwent periods of intermittent but long-lasting growth. As Edward and Æthelflæd expanded Wessex and Mercia into the Danelaw, so the mints that accompanied them fulfilled new roles in the consolidation of territorial gain and royal authority.

## The Evolution of the Coinage

The currency which Edward the Elder inherited from his father in 899 had remained fundamentally unchanged since Alfred’s own coinage reforms in the 870s, and indeed in his 1970 work on English Pennies, Dolley accuses Edward of merely continuing his father’s work in ‘unspectacular’ fashion (Dolley, 1970, 21). In Mercia, however, the situation was quite different. There, Æthelflæd was beginning minting anew alongside her expansion of the burghal programme and, although the coins minted there were in her brother’s name, they displayed a wide range of unique variations in design in ‘a rare and limited numismatic recognition of political distinction’ (Naismith, 2014, 39-41). The distinctive nature of the West Midlands coinage is a blessing for the numismatist, given the dearth of mint signatures on a great many of the coins from the first half of the tenth century. Æthelstan’s efforts to regulate minting with clause 14 of the Grately Code led to signatures appearing on at least some proportion of his coinage, but this lapsed again after his reign, and mint signatures remain relatively rare until their imposition by Edgar’s monetary reforms in 973 (Dolley, 1970, 22-14; Blackburn, 1996, 160; Molyneaux, 2015, 124-126).

Central to the Mercian economy was Chester, which, following its re-occupation by Æthelflæd in 907, developed rapidly to the extent that it became the most prolific mint site in England (Dolley, 1970, 21). This was likely a combination of the effects of the 890s plague on the mints of the South-East, and the availability of new silver resources secured through the re-occupation of the Cheshire plain and Æthelflæd and Æthelred’s consolidation of Mercian overlordship over peripheral Welsh kingdoms. By Æthelstan’s reign, some twenty-five moneys were operating at Chester, a figure outstripping anything seen in his grandfather’s reign even at the peak of activity in London (Blackburn, 1996, 162). This should not be taken to mean that each of these *myneteras* had the same level of output, or remained active for the same period of time, but nonetheless Chester’s output of coinage remained particularly high. During Æthelflæd’s

reign, surviving numismatic evidence suggests that minting only occurred at Chester, however during the reign of Æthelstan, minting activity begins at the Æthelflædan *burhs* of Tamworth, Stafford, Warwick and *Weardbyrig*, with activity at Derby, Gloucester, Hereford and Leicester also beginning in this period.

The spike in minting activity under Æthelstan was followed by a period of fluctuation under Edmund (939-946), Eadred (946-955) and Eadwig (955-959), although given the scarcity of mint signatures that begins in the latter stages of Æthelstan's reign, it cannot definitely be said whether the periodic decline in minting was a trend that affected only the West Midlands or was more national in scale. English minting was in either case still sufficiently productive that Edmund could send a tribute of over 800 silver pennies to Pope Marinus II (942-946). The majority of this tribute was minted in the South, principally at Canterbury, Rochester, Maldon and Hertford, but four coins can be traced to Chester moneyers with a fifth bearing the inscription *TOMIEARDGE* identifying the Tamworth mint (Metcalf, 1992, 84-89; SCBI 34.69; SCBI 34.102; SCBI 34.421; SCBI 34.430; SCBI 64.89). Edmund's reign was troubled by the invasion of Olaf Guthfrithsson in 941 and which led to the loss of Northumbria and parts of the North Midlands, temporarily halting the minting of coins at York and Derby until its recapture in 942, and disrupting Tamworth in 943 (ASC, MS.D, s.a. 941-944, Whitelock (ed.), 1961, 70-71). Eadred continued the campaign of his father and brother, finally incorporating York fully into the Kingdom of England in 954, and also oversaw resurgence in minting, although mint signatures and even portraits grow increasingly rare during this period (Dolley, 1970, 23). The economic strength of Eadred's reign can be witnessed in the stipulation in his will for the minting of two thousand *mancuses* (Sic.) of gold; this would have been a high-value prestige issue, perhaps similar to that for which the famous gold *mancus* of Ceolwulf is presumed to be a prototype (Dolley, 1971, 24). Unfortunately, however, no specimens of this issue are known to have survived.

The reign of Eadwig is poorly documented in numismatic terms. Known as 'short and troubled', marked first by disagreements with the Archbishop of Canterbury and then conflict with his thegns and nobles, the brevity of Eadwig's reign is illustrated by the paucity of finds which date from it; with his fourteen-year-old brother Edgar being placed in control of Mercia and the former Danelaw in 957 before succeeding to the English throne in 959, there are only two years in which the extra-Wessex mints would produce issues in Eadwig's name (ASC, MS.C, s.a.957-959, Whitelock, 1961, 74). On the other hand, his brother's reign is particularly numismatically significant. Edgar's reign was responsible for a vast resurgence in identifiable mint sites, with a vast currency reform in c.973 introducing a uniform national coinage and mandating the



appearance of mint signatures on all issues. Edgar's reform also stabilised the silver content of the currency, which had previously been in slow decline; Dolley and Metcalf's survey of unbroken coins of Edgar in the 1950 Chester hoard showed that the median Troy grain weight of Edgar's coinage increased from 20.6 – 21.5gr. to 21.6 – 22.5gr. post reform. Edgar's reign is marked by an increase in the volume of numismatic finds, compared to a slow but noticeable decrease in identifiable finds from preceding reigns since that of Æthelstan. This is likely due to resurgence in minting as both an economic strategy as well as a political move to show the fiscal strength of the state, and may have resulted in a higher degree of financial liquidity. Edgar's reign is also noticeable for its relative peace and stability, and it is likely that this was reflected in a growing prosperity and economic growth. Edgar notably founded and supported many religious institutions within the West Midlands, such as the Collegiate Church of St Michael at Penkridge (see Chapter 5), and it is likely that this was part of a wider trend of growth in the region.

The stability and prosperity of Edgar's reign stands in stark contrast to that of his son Edward II, whose brief and turbulent reign is marked by a significant decline in the number of finds, although this is to be expected given that Edward ruled for only three years before his murder at Corfe in 978. Only eight coins of Edward II are extant from West Mercian mint sites, although these come from a variety of origins. Given the shortness and political complications of Edward's reign, it is not surprising that the uniformity of his father's reform coinage is lost to a variety of 'coarser' issues with a far more varied, and usually lighter, grain weight than previous coinage (Dolley, 1970, 26). This trend is reversed, however, upon the accession of Edward's half-brother, Æthelred, in 978. Although politically tumultuous, the reign of Æthelred II is of great numismatic interest (Dolley, 1970, 26). Marked by the resumption of Viking raids around the coasts of England and the outbreak of hostilities with Denmark and Norway which culminated in Cnut's conquest of 1016, Æthelred's thirty-eight year reign is commemorated in the increasingly apocalyptic tones of the *Anglo-Saxon Chronicle*, and complicated by Æthelred's difficulties in suppressing the infighting between rival nobles in his own ranks, effectively rallying support against Danish attacks, a series of political and military betrayals, ethnic unrest and social turmoil (Lavelle, 2010, 30-32). Whilst the political and military stability of England crumbled, however, the numismatic record expanded dramatically (Dolley, 1970, 26)

In 991 Æthelred paid the first instalment of the *gafol* tribute, a resurrection of the *Danegeld* payments designed to stave off Viking aggression against England in the face of increasing political disunity and infighting within the English ranks and following a series of English defeats brought about through betrayal and confusion (ASC, MS.C,

s.a.991, Whitelock, 1961, 82). The extent of the payments themselves have been extensively debated, principally between Gillingham and Lawson, as to their exact values and the extent to which the English nation was able to bear the onerous burden of meeting them (Gillingham, 1989, 373-784; 1990, 939-950; Lawson, 1984, 721-738; 1989, 385-406; 1990, 951-961). Lawson and Green both suggest that the taxation rose sufficiently highly to agree with Maitland's 1897 idea of 'an impost so heavy that it was fully capable of transmuting a whole nation', with Green indicating a substantial decline in subsequent *geld* payments, potentially due to widespread dissatisfaction with the levy (Maitland, 1897, 530; Green, 1981, 241-258). The values used here are those included in Whitelock's translation of the ASC, namely ten thousand pounds in 991, 994, increasing to sixteen thousand pounds in 994, and by 1007 rising as high as thirty-six thousand pounds (ASC, MS.C, s.a.991 and 1007, Whitelock, 1961, 83-88).

The net impact of this was a vast increase in the quantity of coinage being produced, albeit with a commensurate decline in weight and silver content after 1003. The vast scale of this tribute, and the resources necessary to provide it, mean that all of the West Midlands mints entered stages of high productivity, one which lasted into the reign of Cnut as the minting network survived the Danish conquest largely intact. Indeed, the scale of the Æthelredian corpus of coins is so vast, and the apparent activation of mint sites so extensive, that the Æthelredian corpus can almost be considered a distinct series compared to other tenth century minting activity. This does not mean, however, that the Æthelredian coins should be discounted as irrelevant to this study. In some cases, disregarding output during Æthelred's reign would render the issues of a mint site negligible, but it should not necessarily be the case that a mint site which only appears to have begun production following 978 actually did so in practice. Given the geographically widespread minting activity carried out for Æthelstan's *Rex tot. Brit* series or Edgar's reform coinage, it is not unfeasible that periodic minting activity had long since occurred at a site such as Worcester, but it is only due to the truly vast volume of coinage produced during Æthelred's reign that any issues endured the peculiarities of survival and archaeological discovery.

If minting did in fact begin *de novo* at an array of burghal and urban sites during Æthelred's reign, that those sites had not previously hosted moneyers even during Æthelstan's reign should also not mean that the sites should be discounted. If, as Lavelle suggests, it was because of a diverse network of local minting sites that England was able to produce sufficient coinage to meet the demand of *gafo*l in the late tenth and early eleventh centuries despite raiding and political upheavals, then this indicates that the burghal system was still largely functioning effectively as a network of secure sites of government control and economic interconnectivity (Lavelle, 2002, 77).

## Catalogues, Hoards and Single Finds: Working with the Coinage

Three principal sources form the basis of this numismatic survey: The Sylloge of Coins of the British Isles (SCBI), the Early Medieval Corpus of Coin Finds (EMC), and the Portable Antiquities Scheme Finds Database (PAS). Many of these finds are also recorded in the British Museum Catalogue (BMC), although this is now largely used for classification, having been largely subsumed into the SCBI. These together form a series of overlapping catalogues which comprise the combined knowledge of extant Anglo-Saxon coins in collections in Britain and across the wider world. The SCBI was begun in 1958 under the impetus of Frank Stenton as a catalogue of the Fitzwilliam Museum's collection, and is now on its sixty-fourth volume covering collections that span the UK, as well as museums as far afield as New York, St. Petersburg, Tallinn and Copenhagen (Grierson, 1958, i). As a catalogue of collections, the SCBI contains mostly hoard finds from both museums and private collections.

Single finds are catalogued under the EMC, which is run in collaboration between the Fitzwilliam Museum and the Leverhulme Trust. These are periodically updated with corroborated finds from PAS, which catalogues and verifies finds from members of the public, usually metal detectorists and amateur archaeologists. The SCBI is published through a series of catalogues, currently on its sixty-fifth volume, and has also been recently digitised, accessible through the same online database as the EMC. Although PAS contributes to the EMC, it is a separate project run by The British Museum in conjunction with the Department for Media, Culture and Sport, and has its own online database. This in turn is divided between corroborated finds and those still awaiting formal identification and categorisation. For this survey, all three sources were combined and exhaustively searched in order to compile a database of all extant Anglo-Saxon pennies produced at the previously listed West Mercian burhs, yielding a total of 1,176 specimens from ten mint sites and encompassing the reigns of eight kings, culminating with Æthelred II in 1016. These were then compiled in a series of spreadsheets and classified by type, issuing mint, moneyer and monarch, find site and Troy grain weight in silver. This database is considered complete as of February 2017, as the constantly updating nature of PAS means that new relevant specimens may have already been found. Indeed, in some areas where the distribution of finds is low, it is hoped that PAS will allow for these gaps to be filled in the future.

By far the greatest bulk of extant coinage is catalogued within the pages of the SCBI, most arriving in their current museum setting from a variety of Victorian and early twentieth-century private donations. It is through the efforts of these early numismatists and the generosity of these benefactors that such a comprehensive record of Anglo-

Saxon currency issues exists today, but their catalogues are very often a double edged sword; for while these collectors were often meticulous in recording the long chain of dealers and collectors through whom pieces came into their hands, they are notably lax in recording the provenance of the coins themselves. Thus only 428 of the coins here surveyed have listed find sites, a matter complicated further by the often haphazard way in which many private collections were apparently catalogued.

While institutions such as the Grosvenor Museum at Chester have gone to lengths to trace both the mint and find sites of poorly-provenanced coins from the Willoughby Gardner Collection, many older collections are far more loosely traced. Several of the coins in the British Museum listed in SCBI Volume 34, for example, are accredited only to "Ireland, 1843", which are likely to be from the 1843 Derrykeighan, County Antrim hoard listed by James Carruthers in 1853 and subsequently largely forgotten (Archibald and Blunt, 1986; Carruthers, 1853, 165). Similarly, many coins from the Copenhagen museum are attributed to the singularly unhelpful 'a Swedish hoard' (Galster, 1964). Thompson's *Inventory of British Coin Hoards* concedes that many records of hoards are rendered useless through inaccuracy or inadequate description (Thompson, 1956, xv).

The location of provenanced hoards can also be problematic; the sheer scale of the *gafol* payments made by Æthelred II means that a great deal of his surviving specimens can be traced to hoards in Scandinavia, where the circumstances surrounding their deposition are not always clear. Furthermore, J.D.A. Thompson cautioned even in 1956 against interpreting even hoards found within the British Isles by traditional means. The prevailing view of hoards at the time, and which has largely survived today – that they were deposited for safety in the event of war or raiding, or as a precaution in a financial crisis, and never recovered – is, he argues, not a safe assumption, and may cover more prosaic reasons for their deposition (Thompson, 1956, xvi).

Indeed, Thompson suggests that many hoards functioned as an early-medieval equivalent of cash stored under the mattress, a secure yet accessible personal reserve of currency which could be depleted and restocked over time (*ibid.*). This is a view supported by H.R. Loyn, who claimed that the relatively high silver value and stable value of the English silver penny would have made it widely respected overseas and thus a currency of choice for merchants trading in and around the British Isles, and that coin hoards found outside of England may well represent the currency reserves of Norse and other merchants rather than the spoils of war (Loyn, 1961, 128). The contents of several hoards of pennies of Æthelred II in Sweden and Gotland, for

example, bear the markers of trade reserves rather than hoarded tribute or seamen's wages. They contain collections of successive issues from multiple mint sites from within a tightly defined period, evidence that hoards were being regularly updated and outdated coins replaced at trade loci. An absence of jewellery, weapons and other typical elements of spoil suggest that these deposits were not plunder kept simply as a lump sum but rather were designed to be regularly accessed reserves and kept contemporary to the currency in use in England (ibid.; Smart, 1986, 171-184).

The early medieval hoards found within the British Isles vary widely in terms in scale, and thus function, between small-scale deposits such as the three pennies of Æthelred II found at Dove Point, Cheshire in 1862, perhaps a peasant farmer's savings or a traveller's purse, to the thirty-one pennies of Edward the Elder and Æthelstan found in Dublin in 1883, possibly representative of an Hiberno-Norse merchant's reserve, and the c.7000 Anglo-Saxon, Danish, Carolingian and Arabic coins found in the 1840 Cuerdale hoard (Thompson, 1956; Naismith, 2014, 40; Dhénin and Leclercq, 1982, 104-107). Whatever their original purpose, however, hoards generally represent a planned burial of coinage, and thus for this survey greater value will be placed on the distribution of single finds.

Single finds are particularly useful as they can be generally assumed to be representative of random accidental losses of coin and thus illustrate what constituted the everyday currency (Naismith, 2013b; 2014, 40). In this case, the distribution of single finds will be of chief importance as it allows the mapping of the extent to which coins from the Æthelflædan burhs entered general circulation within England. Evidence that coinage from these sites was in regular use beyond local confines would be clear indication that the West Midlands burhs functioned as part of a wider economic network throughout England and that the mints therein did not function merely as political tools. Furthermore, the comparison of the different mint sites' distribution with a statistical analysis of their activity throughout the course of the tenth century will illustrate which sites were most prominent economically, why this was case, how the economic function of sites changed over time, and what this information suggests about the strategic planning and value of each individual site.

Plotting the distribution of single finds has been greatly facilitated by both PAS and the digitisation of the EMC database. Collaboration between the two has allowed for finds located and validated through PAS to be quickly integrated into the EMC and by extension the SCBI where appropriate, with the metal detectorists responsible for the majority of finds able to supply relatively accurate spatial data on their find spots. More recent volumes of the SCBI have also benefitted from this technological progress in

accurately recording the find sites of specimens which have made their way into museum collections, but unfortunately such progress cannot be applied retrospectively.

Many coins recorded in either the EMC or earlier volumes of the SCBI are recorded as single finds but their provenance can only be traced as far as the dealers and benefactors through whom they entered the recorded collections. While these were recorded as being single finds, only rarely was the location at which they were found beyond 'local' ever given in any more detail than the county, meaning that, for example, some finds from Staffordshire and Herefordshire are assigned to Stafford and Hereford respectively. Similarly, a great deal of single finds from the East Midlands can only be traced to Leicester, where the dealer and collector Joseph Young had been particularly prolific in the late eighteenth and early nineteenth centuries in supplying multiple local finds to museums throughout the Midlands, especially the Willoughby Gardner Collection at the Grosvenor Museum in Chester and the Leicester city museum (Gunstone, 1971, xvi). While many sites are host to multiple single finds – the odds of random losses naturally greater within towns and settlements like London and Gloucester – Leicester thus appears proportionately over-represented in the distribution of random single finds and may be responsible for fewer distributed finds in neighbouring regions. Unfortunately, there is no viable way of redistributing those single finds attributed to Leicester to their original find sites; however, since these are recorded as 'local', Leicester's popularity should not overly affect the wider distribution of finds throughout England as a whole.

### Burghal Minting: Design and Function

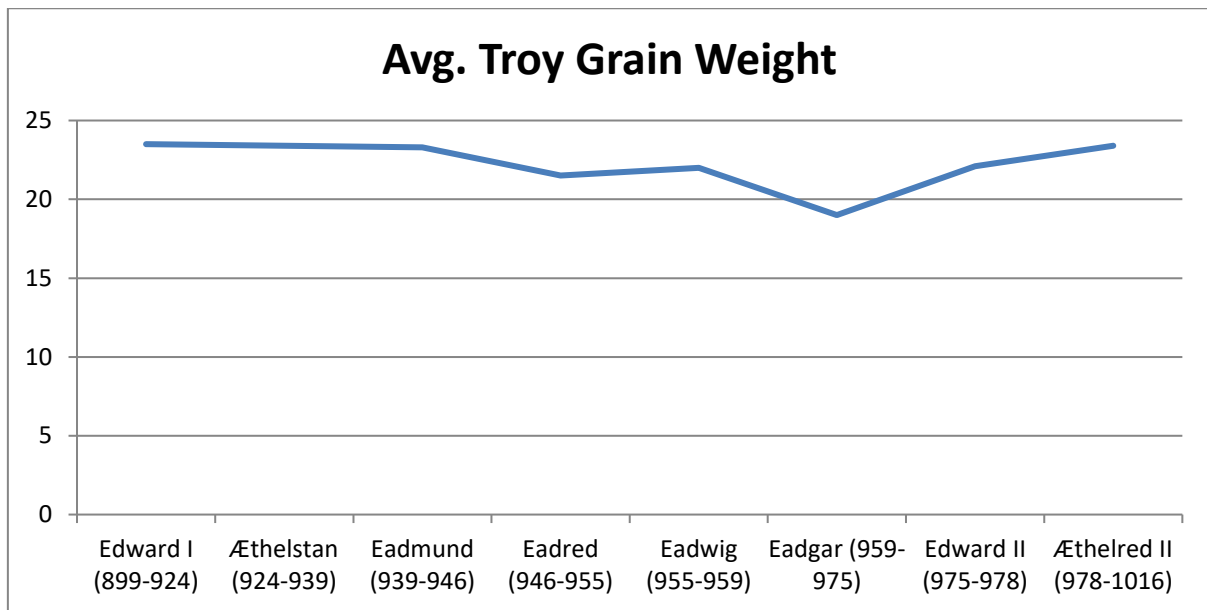
In 1956, J. D. A. Thompson stated the contemporary erroneous view of Anglo-Saxon coinage that 'the motive of governmental propaganda, so highly developed in the Roman Imperial series, is almost always lacking' and that English coins seldom contributed original or important evidence about either historical events or persons (Thompson, 1956, xv). By the tenth century, however, this is profoundly untrue. Loyn records a remark of Frank Stenton that an Anglo-Saxon penny was 'the only historical document one could purchase for a pound which could provide the historian with such wide ranging and comprehensive information' (Loyn, 1960, 122). Besides the obvious naming of kings, moneyers and, in some cases, mints, an Anglo-Saxon penny can suggest a king's relative wealth based on his supply of bullion, reveal which symbolism and representation he saw as important and en masse can give vital information on both the scale and distribution of his economy (Naismith, 2013a; Molyneaux, 2015, 118). Issues such as Coenwulf's famous gold *mancus*, now in the British museum, or Ecgberht's 829 issue proclaiming his short-lived control of the *Londonia Civitas* speak

volumes about those kings' political ambitions and the way in which they were projected through their material culture. The coins of the ninth and tenth century were no different.

Comparisons are often drawn between the Anglo-Saxon English coinage and its contemporary counterpart in Carolingian Francia, often in an attempt to find similarities in design, weight or production, but Loyn maintains that these are 'positively misleading' (Loyn, 1961, 126). Carolingian and other foreign coinage itself was ruthlessly excluded from circulation in England, although occasionally re-stamped if found to be of sufficient weight, in order to better maintain the value of the penny (Blunt, 1981, 119-121). Carolingian minting itself had often become a function of private moneyers representing local interests, leading to the coinage becoming seriously debased and requiring multiple attempts at reform in the tenth and eleventh centuries (Loyn, 1961, 126; Campbell, 1986, 186-187). Private minting of a limited form had occurred in England with moneyers operating under bishops' auspices at Episcopal mints at Canterbury and York, but this drew to a close during Edward the Elder's reign with both Plegmund of Canterbury (890-914) and Wulfhere of York (854-900) being the last archbishops to produce their own issues (Blackburn, 2003, 33).

English minting became solely a royal preserve which greatly preserved the value and uniformity of the currency, and thus its value as both an economic and propaganda tool (Loyn, 1961, 126). The thirteenth-century historian Roger of Wendover wrote the sole record of Edgar's reform in his *Flores Historiarum*, claiming that the state of the English coinage had become so corrupted that the weight of a penny in circulation had fallen to almost half of its original value, but this is belied by the numismatic evidence (Dolley and Metcalfe, 1961, 136; Coxe, 1841, 416). *Fig. 51*, below, graphs the average Troy Grain weight in silver of English pennies minted in the West Midlands throughout the course of the tenth century, calculated from the given weights provided in the SCBI, EMC and PAS wherever possible.





*Figure 51: Average Troy Grain Weight of silver content in English pennies from Mercian mints in the tenth century, illustrated by reign. Calculated from grain weights taken from SCBI, EMC and PAS where recorded.*

*Fig. 51* illustrates the mean average of Troy Grain weights throughout the tenth century of coinage pertinent to this survey. These averages are not perfect: coins included in the SCBI represent only a small surviving fraction of the total coinage of the period, and these databases include many coins for which a grain weight is often unobtainable. Neither do they take into account the poor quality of many specimens, especially single finds which are often heavily chipped or fragmented, which is in part responsible for the significantly lower average weight during Edgar's reign in particular. Nonetheless, these specimens do provide a good sample for the quality of the wider coinage. A general downward trend in the silver weight of the coinage is indeed noticeable, from the average of 23.5gr. during Edward the Elder's reign to the 19gr. during the reign of Edgar, with the grain weight of subsequent issues increasing post-reform, returning to 23.4gr by the reign of Æthelred II. While certainly noticeable, these changes are certainly nowhere near as extreme as the halving of the value recorded by Roger of Wendover. This sample thus not only implies a currency that remained relatively stable, and thus widely economically valuable, over the course of the tenth century, but also that the West Midlands mints stayed in line with minting practices throughout the wider English kingdom, part of what Blackburn called an 'evolved complex entity' which married central and royal concerns with those of moneyers, die-cutters and others across the kingdom (Blackburn, 2003, 33).

Quite apart from its economic purpose, currency was a key part of illustrating government in action to the population, an important 'manifestation of control and rulership' and a projection of royal power in both reality and ambition (Garipzanov, 2008, 41; Naismith, 2013c; Molyneaux, 2015, 118 and 208). Clause 14 of Æthelstan's

Grately Code contains the stipulation that there should be an *mynet sy ofer eall ðæs cynges onweald*, 'one coinage over all the king's realm', and his Chester coinage in particular bears the inscription *ÆDELSTAN REX TOT BRIT*, an abbreviation of *Rex totius Britanniae*, 'King of all Britain' (Liebermann, 1903, 158). This *Rex tot Brit* series appears to have been a particularly extensive issue, as will be evidenced by surviving issues illustrated below, and suggests that it was as much a politically important issue as it was a clear display of economic power. Such laws and inscriptions are obvious statements of territorial ambition and the fiscal power of the Crown to impose and uphold a single functioning currency across the entire kingdom. Established in the wake of the armies which raised the new burhs, and often on the sites of prior Viking mints, the new mints were a facet of the expansion of English royal control key to the consolidation of new territory (Blunt *et al*, 1989, 52-54). As the burhs consolidated territorial control and the royal patronage of local cults sought to assuage the local population, so new mints could quickly integrate new territory into the wider English economy and serve as a potent sign of English wealth and the ability to quickly muster the economic resources necessary for minting to a site. While the tenth-century economy was in no way fully monetised, the 'substantial monetary component' to the economy would have given the coinage a more prosaic propaganda value as well: a regular visual reminder of the king and his authority, and symbols of his Christian legitimacy (Naismith, 2013b, 291).

Despite reforms such as Æthelstan's or Edgar's and their occasional attempts at imposing a 'national' coin type, fluctuations in typology, design and inscriptions from both hoards and single-finds suggest the currency was never entirely hidebound and indeed indicate that there was a great deal of regional flexibility in minting (Blackburn, 2003, 33). It is indeed because of this flexibility that many mid-tenth-century issues can be identified as originating in the West Midlands despite a lack of mint signature. The pictorial designs which began to appear on Chester issues towards the end of Æthelflæd's reign signified a design type which soon became typical of the mints established throughout the West Midlands, as new mints were often established with personnel seconded from other Mercian mints (Blackburn, 1996, 164). The emerging mint at Derby, for example, was staffed in part by the moneyers Boiga and Beornard who had previously minted for Edward the Elder at Chester.

This movement of regional personnel between sites was essential for the rapid establishment of new minting sites, and was likely also intended in part to appeal to the local Mercian population. Whether in re-conquered provinces or in the Mercian heartlands and concerned about a loss of national autonomy to a West-Saxon-dominated England, the use of Mercian moneyers and the appearance of regional

types could well have been intended to assuage somewhat the concerns of Mercians that their regional distinctions would be lost. This trend, however, was also in no doubt responsible for the manifestation of a mild political resistance in opening decades of the century (Williams, 2013, 137-138; Blunt, 1974, 93-97; Lyon, 2001, 71). Æthelstan's *Rex totius Britanniae* issue, minted as *REX BRÆ* at Gloucester and *REX BRITA* at Hereford, appears in the Derby issues of the moneyers Boiga, Beornard and Mægenreðes as *REX SAXORVM* (*sic.*), a misspelling of *Saxonum*. This appears to be an intentional emphasising of the innately foreign nature of the 'English' king compared to the *Angli* of Mercia, and a counterpoint to the *Rex Anglorum* title used by Æthelstan (Dumville, 2002, 12). It is more likely that this was a distinct element of Derbian, rather than Mercian, separatism; Æthelstan had been 'chosen by the Mercians' as king, and his *Rex totius Britanniae* title had appeared on issues from prominent Mercian mints such as Chester (*The Mercian Register*, s.a.924, Whitelock (ed.), 1961, 68). Derby, on the other hand, had been a Viking stronghold which had only relatively recently been secured, and unlike Leicester or York, one which had been forcibly captured, presumably amid fierce fighting. It is perhaps to be expected, therefore, that within this context, there would still be some lingering resentment from the population against a king who, whether *Saxonum* or *Anglorum*, would represent conquest and occupation rather than peaceful coalition.



Figure 52: SCBI 2.623: Circumscription Penny of Æthelstan, EDELSTAN RE SAXORVM, Derby (DEORABVI), Boiga. Image: EMC

One of the best known, and perhaps the most interesting, of the pictorial types to appear from the West Mercian mints is that featuring reverse architectural designs, which begin at Chester during the reign of Edward the Elder and are minted in his name by Æthelflæd. These first appear in the early 900s and survive a short while into the reign of Æthelstan. The pictorial designs appear in two types, the most common of which shows a stylised tower design produced by the moneyers Eadmund, Wulfsgie,

Eadwald and Walter, while a less frequent design, dubbed the 'Minster type' and depicting a complete building with a central tower is produced by the moneyer Wulfgar (Thompson, 1967, coin no. 316). Crucially, both of these designs appear to be innovations on the behalf of the moneyers who cut them. Architectural designs were known during the Roman Empire, but with the exception of issues from Rome, Alexandria and some cities in the Eastern Empire which showed prominent landmarks, most depicted only stylised temple scenes, and nothing stylistically similar to these Chester issues (Handler, 1971, 57).



*Figure 53:* SCBI 16.151: Circumscription Cross Penny of Edward the Elder, Chester 'Tower' Type, Eadmund. Image: EMC



*Figure 54:* SCBI 6.107: Circumscription Cross Penny of Edward the Elder, Chester 'Tower' Type, Waltere. Image: EMC



Figure 55: SCBI 2.593: Circumscription Cross Penny of Edward the Elder, Chester 'Tower' Type, Wulfsige. Image: EMC



Figure 56: SCBI 20.768: Circumscription Cross Penny of Edward the Elder, Chester 'Minster' Type, Wulfgar. Image: EMC

The similarities between dies of the 'tower' design used by different moneyers indicate that this may have been designed as a 'Chester type', in a similar vein to Alfred's distinctive London Monogram type, which had been continued by Edward the Elder. This in turn suggests a level of prestige and political capital associated with controlling the city, indicative of its new status. The 'Minster' design is contemporary to the 'tower' series, and was possibly issued locally to celebrate the restoration of the seventh-century minster of St Werburg, along with Æthelflæd's translations of the saint's remains to Hanbury and then Chester in the same period (Thacker and Lewis, 2003, 18-22). The tower design has been variously described as a stylised church, gatehouse or watch-tower, or indeed all three simultaneously, although Naismith suggests that it is likely to be a defensive tower design minted to celebrate Æthelred and Æthelflæd's restoration of the Roman city walls in 907 (Naismith, 2013, pers. comm. 9 July).

Æthelflæd appears to have inherited her father's enthusiasm for Roman history, or at the very least understood the great importance of *Romanitas* and its continued projection to the symbolic authority of early medieval government, embracing the Roman legacy in the design and organisation of her defensive networks (see Chapters



2 and 3) as well as emulating Roman designs in royally-mandated material culture (see Chapter 5, below; Keynes and Lapidge, 2004, 14; Carver, 2010b, 135 Hill, 2003, 219-233). With this in mind, it is possible that these pictorial designs were inspired by earlier Roman architectural coins, albeit with new, Mercian designs, and indeed bear some resemblance to issues of Tiberius celebrating the construction of the Temple of Concordia, and Nero's construction of his triumphal arch, both of which can be seen in the Ashmolean Sylloge. These architectural designs are particularly significant in that they celebrate Æthelflæd's restoration and maintenance of the physical legacy of the Roman Empire, illustrating an especially aspirational *Romanitas* that moves beyond the adoption of mere Roman customs, values and cultures, to portraying a level of sophistication capable of replicating the physical traits of the Empire. That a tower was chosen is significant, as it supports that the *burh* at Chester had infrastructure which would integrate it into the surveillance and signalling network described in Chapter 3. A celebratory issue also suggests that other issues may have been produced to celebrate the fortification of other *burhs* or significant Mercian sites.

Other pictorial issues appear during Edward's reign, with a Roman wall design minted at Chester by Cuthberht, a series of '*Manus Dei*' designs illustrating God conferring his blessing to Edward's reign, and a panoply of floral designs by moneyers such as Wighard and Boiga, before the latter's transfer to Derby during the reign of Æthelstan. Pictorial designs largely disappear during Æthelstan's reign, apart from a brief new tower design which appears from York, likely to have been issued to celebrate his capture of that city in 927. Æthelstan spent much of his youth with his aunt and uncle in Mercia, from whom he would have received much of his education and military training, and it is possible that he may have been imitating his aunt's own celebratory Chester types he would have seen there (Foot, 2011, 30).



Figure 57: SCBI 30.345: Circumscription Cross Penny of Æthelstan, York 'Tower' Type, Regnald. Image: EMC



Figure 58: SCBI 16.150: Circumscription Cross Penny of Edward the Elder, Chester Type, Deormod. Image: EMC



Figure 59: SCBI 11.62: Portrait Penny of Æthelred II, Derby (DEORABY), Osolf. Image: EMC

Such fluctuations in design remain absent for much of the rest of the tenth century as the coinage is largely standardised following Æthelstan's reforms, but the Chester *Manus Dei* type seen under Edward the Elder is resurrected at the end of the century by Æthelred II. The design is far more sophisticated than that which appears under Edward and, although featuring prominently at both Chester and Derby, also features at London and other mints. Just as Alfred used Roman designs in his *Two Emperors* issue, it is probable that Æthelred was recalling an earlier design from his successful great-grandfather's reign. This was potentially an attempt to symbolise the intent to provide a continuation of such illustrious rule, to impart similar implied divine assistance at a time when his reign was not yet beset by catastrophe but cracks were beginning to show, namely in the political upheaval as Æthelred came of age and took control of his own government, combined with the low-scale reappearance of Viking raids, and the onset of a virulent livestock plague (Roach, 2016, 112-116). A similar plague had devastated much of south-east England in 896, a 'great mortality of cattle and men' which had killed many of Alfred's thegns, and severely impacted the West Saxon economy (ASC, MS. A, s.a.896, Whitelock, 1961, 58). Edward's nascent reign had weathered the aftershocks of that crisis, as well as Æthelwold's rebellion and Danish invasions, and perhaps Æthelred wished to project that he could do likewise.



Alfred's earlier *Two Emperors* issue is itself important, celebrating an alliance that flies in the face of the ASC's dismissal of Ceolwulf II as a 'foolish king's thegn' and puppet of the Vikings (ASC, MS. A, s.a.874, Whitelock (ed.), 1961, 48). The recent discovery of Ceolwulf's issues of the same design alongside those of Alfred in the Watlington Hoard further emphasises the extent to which this coinage was minted to celebrate an important political alliance, as well as providing a useful precedent for the type of bi-state minting carried out by Æthelflæd at Mercian sites in Edward's name (Williams and Naylor, 2017, 6-7).

The coinage produced at the Mercian mints was initially visually distinctive, but from the reign of Æthelstan onwards was brought more into line with a form of national standard, just as Mercia was incorporated into the wider Kingdom of England. During Edward's reign, the coinage produced at Chester by Æthelflæd served an overt political, as well as economic, purpose. Its designs emphasised the successes and infrastructural power of the Mercian state in particular, alongside its issues calling for the divine support of Edward and its multitude of other designs. With the Chester 'tower' types in particular, it is likely that Æthelflæd wanted a clear marker of Mercian individuality, perhaps one of many political acts to placate a Mercian nobility and populace concerned with what must have seemed like an inevitable loss of political and cultural independence to impending West Saxon overlordship. With the decline of the London mint in the 890s and Chester's commensurate increase in output, it is possible that Æthelflæd wanted to emphasise Mercia's role as an important partner in the creation of England rather than have it appear as an occupied satellite of Wessex. The Chester 'tower' and 'minster' types would ensure that her achievements, and those of wider Mercia, would be commemorated properly, a numismatic equivalent of establishing the '*Mercian Register*', whilst still providing currency proclaiming the overarching authority of her brother, Edward, in Wessex. In Æthelstan's reign, minting becomes more uniform and loses much of the visual flair of previous issues, but the propagandistic value remains overt. The *Rex tot Brit* series in particular is a clear proclamation of territorial and political intent, as much as it is a showcase of current economic strength. The Derby variations of this issue nonetheless illustrate a degree of provisional individuality and local identity politics remaining intrinsic to the minting of coinage. That the Mercian coinage conformed to a wider English type is a clear indicator that the mints of the Æthelflædan burhs were designed to operate in conjunction with West Saxon mints as part of the wider economy. By analysing some of the minting statistics, it will be possible to discern other purposes behind the establishment of these burghal mints and explain changes in minting activity. *Fig. 60*, below, illustrates the output of the sites in this survey throughout the Tenth Century.

West Mercian Mint Activity By Reign

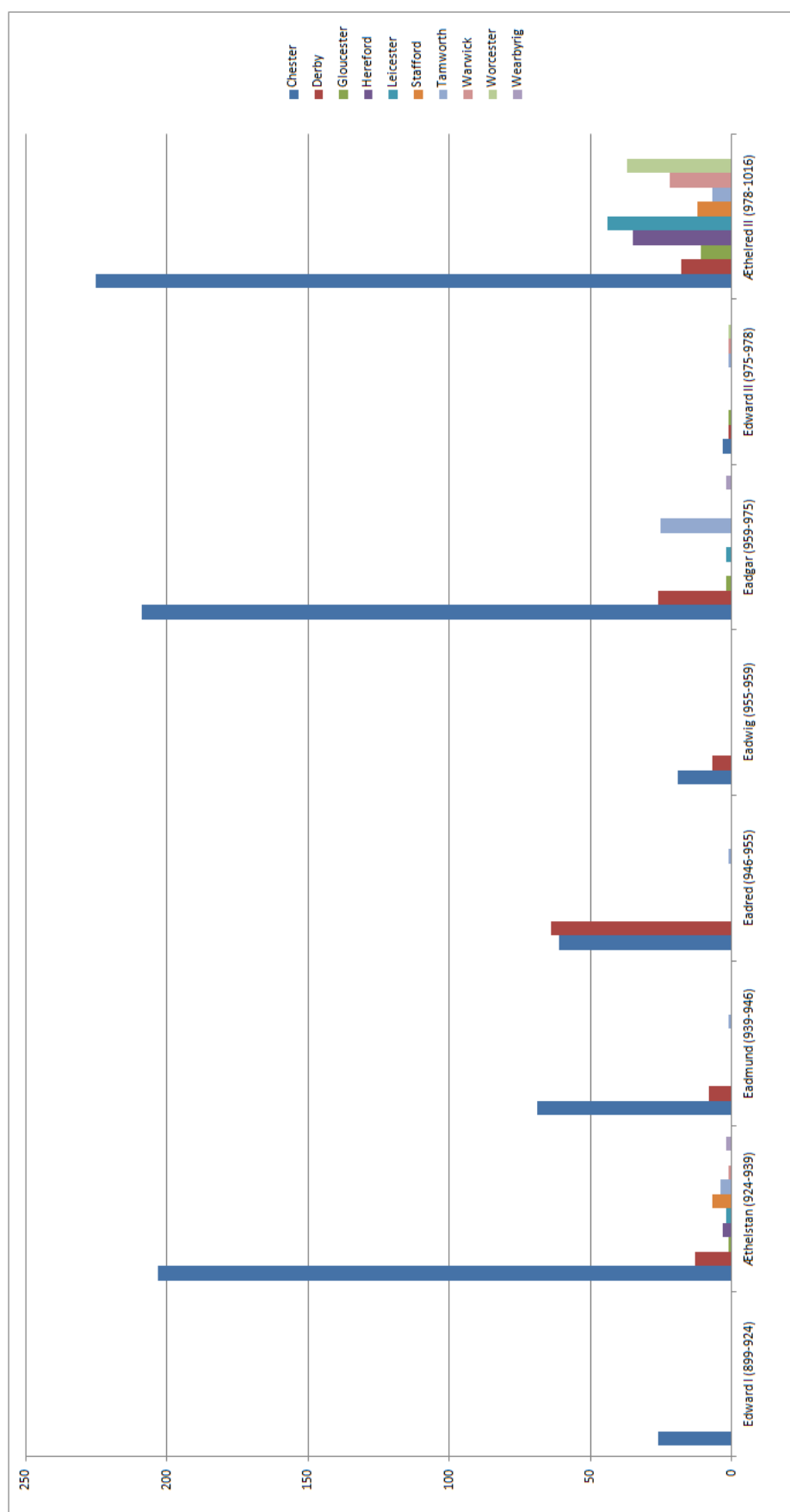


Figure 60: Surviving finds of West Mercian mint sites, shown by reign, derived from mint data of finds recorded in the SCBI, EMC and PAS databases.

*Fig. 60*, above, shows the extant output of the *Æthelflædan* burghal mints throughout the course of the tenth century, as well as Mercian civic mints and mints in the Mercian-captured Danelaw for comparison, as taken from the total finds recorded in the combined databases and volumes of the SCBI, EMC and PAS, and divided between the reigns of the English monarchs. Appendix I further shows each of the mint sites' output independently, although the vast differences in the scale of output between mints means that the scales are not always comparable. While Chester's productivity dropped significantly during the reign of Edmund, for example, it still vastly outstripped production elsewhere. As with all data of this type, *Fig. 60* should not be construed as a true representation of the net output of each of these sites, as it is drawn from data which is intrinsically incomplete and biased by the vagaries of artefact survival and archaeological discovery. That the popularity of Chester issues, for example, is so overwhelming can be attributed in some part to the high number of extant finds resulting from the Chester hoards, whilst the paucity of Warwick issues may be similarly inflated by a simple lack of discovery. Nonetheless, *Fig. 60* can be said to be at the least highly representative of the relative mint outputs of sites within West Mercia during this period; the Chester hoards do contain coins from other mint sites in similar ratios to those seen in *Fig. 60*, and the of distribution of single finds must to some extent reflect the composition of the coinage in circulation at the time of their deposition. That is to say, there is no apparent reason why the survival rates of Chester issues would be in any way different from that of other coinage, and that a great proportion of the surviving specimens are of Chester issue must therefore reflect that the greater proportion of coinage in circulation was indeed of Chester origin.

Indeed, Chester's dominance of minting appears to be the defining feature of tenth-century minting, consistently high output apart from the brief reigns of Eadwig and Edward the Martyr suggesting that *Æthelflæd's* steps to develop the city in 907 were highly successful in fostering it as an economic as well as a military centre. It must be asked, therefore, why Chester was able to develop into such a bastion of English economic activity in place of pre-established civic centres such as the Mercian 'capital' at Tamworth, Gloucester, or the episcopal centre of Worcester, from which extant finds only appear during the reign of Edward the Elder.

Chester may at first appear an anomalous choice given the largely military assignation of other Mercian *burhs* (see Chapter 2), but this is not the case, and indeed the reasons behind Chester's selection as a prominent mint coincide with the reasons underpinning its fortification. Like the Wessex mints at London, Rocester and Canterbury, Chester had been a significant Roman centre, and *Æthelflæd's burh* was based heavily on the restored Roman city walls which, when combined with the city's

geography and the River Dee, would have made the site easily defensible (Bond, 1987, 110). As during its Roman heyday, Anglo-Saxon Chester was in a highly strategic location on routes across the Irish sea, the North and from Wales, further enhanced by the extensive Roman road network which extended from the city and ultimately connected it not only with the rest of Mercia, but also with Wessex and as far as London. This placed the new *burh* in a prime position to receive bullion both internally and externally from Wales, as well as being well situated to facilitate the extension of English coinage South into Mercia, as well as West into Wales, East into the Danelaw and North into Northumbria. At the convergence of so many routes, Chester's development into a locus of trade activity is perhaps inevitable, and as such the *burh* became a mercantile hub, it would also have made economic sense to establish a mint to further facilitate trade activity, especially following the provisions for trade centralisation passed in Æthelstan's Grately Code. The extent to which the Cheshire plain rapidly became a well-settled and prosperous area can be seen below in Chapter 5, and it is likely that this was in no small part due to the economic opportunities proffered by settlement close to a developing trade hub. Reciprocally, the maintenance of a steady supply of ready currency in the area would not only facilitate the growth of economic links between the new *burh* and its burgeoning hinterland, but also provide an easy form of propaganda to strengthen an 'English' cultural identity among the new population.

The other established Mercian civic centres, such as Worcester and Tamworth, may have been well situated for internal trade, but certainly not for international mercantile activity on the scale of that at Chester. They also lacked such ready access to supplies of bullion, and as previously established centres, are likely to already have established hinterlands. It must also be considered that Worcester and Gloucester, as well as the *burh* at Warwick, lie close to the Wessex border in areas firmly under Mercian control, with Gloucester in particular relatively close to both the *Burghal Hidage* site at Bath and the rapidly developing urban site at Bristol. Combined, these factors suggest that these were territories which would have little need of Anglicising propaganda, and could already receive new currency from the *Burghal Hidage* mints to the South and East. The propaganda value of a readily identifiable coinage being produced in large numbers from a restored Roman city on the very border of English territory, however, both as a boost to the English and as a warning to the Danes, cannot be easily ignored.

The mint at Chester, therefore, may have been planned from the beginning, but what of the other *burh* sites at which minting occurred, and how did these sites compare to minting elsewhere in Mercia? As *Fig. 60* illustrates, mint activity appears to have been

initiated at all of the sites surveyed during the reign of Æthelstan, with the exception of Worcester. Given the low number of extant finds from many sites, however, it is entirely possible that minting also occurred at Worcester during this period and there are simply no surviving specimens. With the exception of Derby and Tamworth, minting at the other sites was also noticeably brief and intermittent, with activity ceasing after Æthelstan's reign until at least the reign of Edgar, leaving Chester as the predominant mint throughout the period. The types of coinage produced during these intermittent periods of activity is important to illuminating the underlying purposes of this minting, and further explaining trends in mint activity across Mercia. In contrast to the variety of issues and designs which stem from the Chester mint, the other Mercian mint sites appear to have been activated solely to produce Æthelstan's *Rex totius Britanniae* 'Circumscription Cross' issue (BMC Type V). That all extant Æthelstan issues from the non-Chester mints are comprised of this single reform type is highly suggestive that this minting activity was inherently political, even more so than the political message implicit in the inscription of the coinage itself. The *Rex tot Brit* series, beyond proclaiming Æthelstan's political and territorial ambitions, also presented a perfect opportunity for the new king to showcase the existing political and economic strength of his nascent kingdom. By extending minting throughout *burhs*, towns and settlements across Mercia, and England as a whole, the new coinage allowed Æthelstan to demonstrate his personal control across newly-consolidated English territory, imprint his authority and illustrate the wealth organisational capacity of his kingdom in being able to organise such a uniform coinage across such a wide variety of sites.

The minting at Gloucester, Hereford, Leicester, Stafford, Warwick and *Weardbyrig* being political in nature would imply that, at least during Æthelstan's reign, the mints there were not permanently designated buildings, but rather temporary endeavours established for short term gain. Unfortunately, Anglo-Saxon mints leave little archaeological trace beyond discarded mules and the spoil heaps common to metalworking industries. Even at established sites like Chester, minting was carried out at individual moneyers workshops on an *ad hoc* basis rather than at a centralised mint building, thus making the physical mint sites particularly hard to distinguish (Naismith, 2013, pers. comm. 9 July; Molyneaux, 2015, 131-133). At Derby and to a lesser extent Tamworth, however, the data suggests that satellite mints were established with long-term production in mind, with minting continuing throughout the tenth century. It can be implied, therefore, that Tamworth and Derby were also envisioned to function as long-term mints in the same fashion as Chester, with a longer-lasting economic role than the short-term political mints established at the other *burhs* and settlements. Tamworth had been a site of high political significance within Mercia since the Eighth Century at least,

and Æthelstan's decision to found a permanent mint there was likely a political decision to pacify the Mercian nobility towards Mercia's integration into England by attaching a contemporary political significance to a historically important Mercian site. If, as William of Malmesbury suggested, Æthelstan was largely raised at Æthelflæd's court, then it is likely that this heavily influenced his decision to recognise the importance of Tamworth to such an extent (Foot, 2011, 17).

Geographically, both Tamworth and Derby are sufficiently far from both the Wessex border and Chester, and close to the expanding English border in the North West, to justify the establishment of smaller mints to ensure the effective distribution of currency throughout the central Midlands. With Derby's recent history as a prominent Danelaw settlement, and the bloody fighting necessary to capture it (*Mercian Register*, s.a. 917, Whitelock, 1961, 64-65), the establishment of a permanent mint at the new *burh* would be a powerful statement of English royal authority and a constant reminder of English sovereignty and imposition of identity over what had, until recently, been a hostile population. A higher level of production at Derby over Tamworth suggests that the mint prioritised an economic role over the political, while the consistent but relatively low level of output from the Tamworth mint suggests that the activity there was more likely to have been a matter of prestige, and political in nature. Indeed, Tamworth would not need to have developed into an economically significant mint, given the vast production of coinage at Chester. At Derby, however, within the old borders of the Danelaw, a more extensive operation may have been necessary. Given the length of time in which a militarised border separated Derby from West Mercia, a certain reticence in the trade and circulation of population which would otherwise be central in the effective distribution of coinage can only be expected, and the establishment of a permanent mint may have made economic as well as political sense.

The proximity of other minting sites may also explain why there is no numismatic record from Bridgnorth, Eddisbury, Chirbury or Runcorn. Bridgnorth and Chirbury are both within thirty miles of Shrewsbury, where a non-burghal mint was in operation, and thus auxiliary mints may have been deemed unnecessary. Similarly, Runcorn and Eddisbury are both in close proximity to Chester, within c.20 miles and 10 miles respectively, where establishing another mint so close to such a major minting centre would have been superfluous. Runcorn also lies within 30 miles of the burhs established by Edward the Elder at Thelwall and Manchester. Given the almost exclusively military nature of these sites, likely with a seasonal or transitional population beyond a potentially small regular garrison, it may have been logistically unviable to establish mints at these disparate sites. Given that many of these *burhs* were also new sites, there may also have not been the same political capital

associated with minting at the new fortresses such as Eddisbury and Bridgnorth, as compared to exercising control over older civic sites such as Gloucester and Tamworth. With the expense of maintenance and garrisons, it may even have been the case that some of the *burh* sites were being drawn out of service, particularly towards the end of Æthelstan's reign following the victory at *Brunanburh* and the appearance of a new political unity and stability. The *burh* at *Weardbyrig* remains a conundrum, with the minting there implying that the *burh* was located at a settlement or a site of some political value, and that it was still inhabited and settled by the end of the century. No further evidence, however, suggests any further clarification of the *burh*'s location or function.

## Coinage Distribution and Economic Networks

In order to determine the output of individual mint sites and the extent of any economic networks of which they were a part, it was decided to research the find sites of extant issues and to map the distributions found. These distributions are shown for each of the Mercian mint sites selected for the survey and are shown in *Figs. 61-70* (below). With the high rate of production at Chester, distribution was also mapped for find sites of Chester issues throughout the course of the tenth century divided by reign; these can be seen in Appendix I. The data for these distributions is taken from that recorded in the SCBI, EMC database and through PAS. As previously discussed, some of these listed find-sites are far more geographically reliable than others; while finds recorded through PAS comprise by far the smallest selection of extant Mercian coinage, their find sites are typically exhaustively recorded thanks to the efforts of finds liaison officers and the prevalence of modern GPS technology allowing for accurate mapping. The vast majority of finds, however, are recorded in the SCBI and EMC, and although many more recent finds have their locations recorded, a great bulk of the issues recorded in the earlier volumes of the SCBI in particular have their find-site limited only to a county, or are listed to the county town or specific dealer from which they were acquired. Here, the provenance of many is simply listed as 'local'. Many of the finds within the SCBI do not even have a vague find-site recorded at all, particularly those extensive catalogues which entered into museum records by way of private collections of amateur numismatists and antiquarians. While many Victorian enthusiasts had a passion for owning a part of Anglo-Saxon history, it does not appear that the same enthusiasm extended as far as taking any steps to accurately record its provenance. While they cannot therefore provide a complete distribution of every found tenth-century Mercian issue, *Figs. 61-70* nonetheless provide as accurate as possible a distribution of every coin of which the provenance is known.



# The Chester Mint, c.899-1016

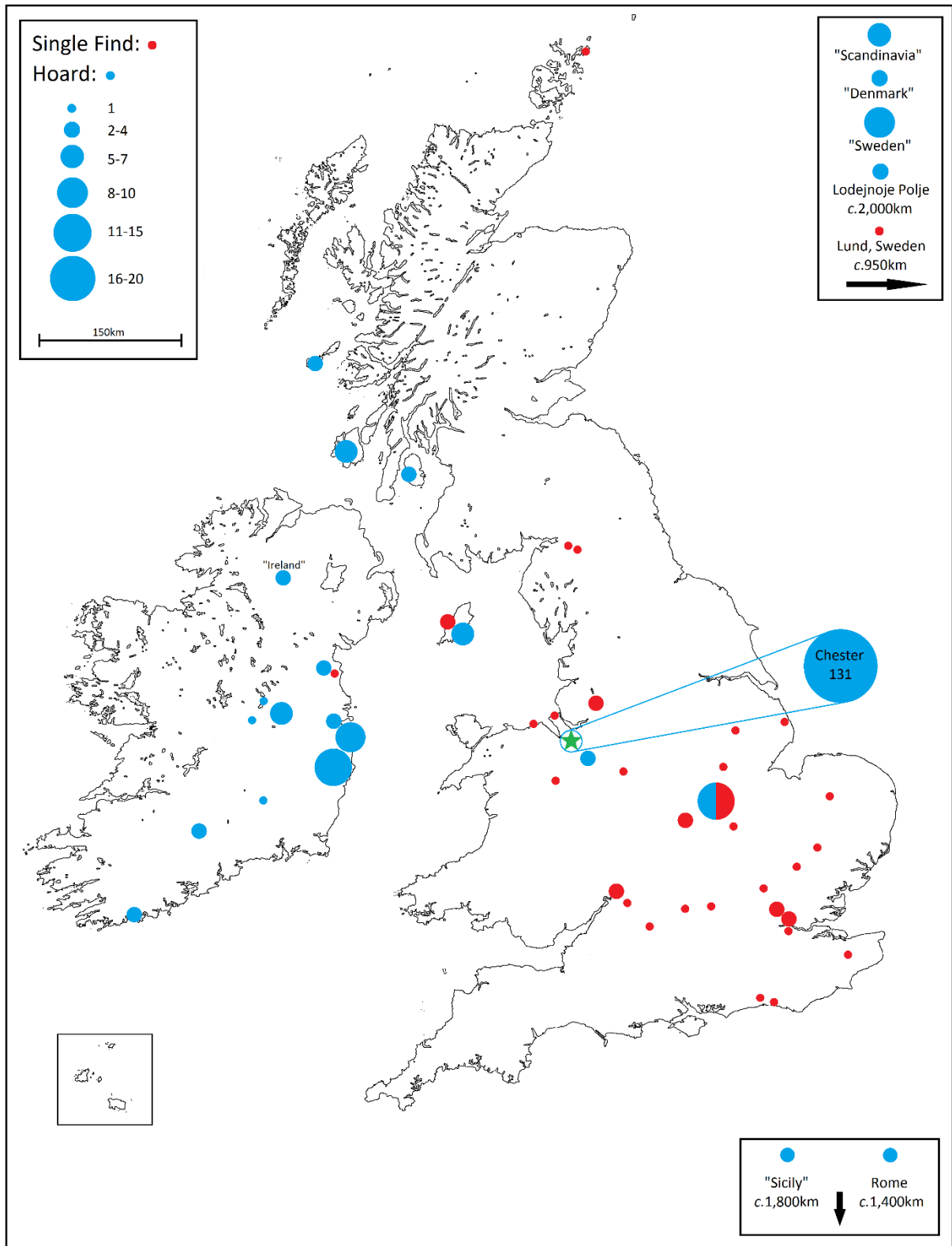


Figure 61: The distribution of tenth-century finds from the Chester Mint, based on data from SCBI, EMC and PAS sources.

On each map, hoards and single finds are differentiated by colour, to better illustrate the differences in usage patterns and causes of deposition as discussed above. In many cases, sites are shown with multiple single finds. These should not be confused with hoards: cases of multiple single finds reflect a high concentration of individual deposits rather than many coins deposited together, showing an area with a higher rate of random loss. This is particularly to be expected in settlements, towns and ports, where a denser population, more use of currency and higher foot traffic would naturally result in larger volumes of coinage being lost or accidentally discarded. Regardless of the size of the available dataset, each mint site has been mapped individually. It is hoped that by graphing the distribution of finds, this will illustrate the extent to which each site was part of an economic network, and the scale upon which that network operated, either locally or nationally.

*Fig. 61* maps the distribution of finds of all coins minted at Chester c.899-1016 as recorded in the database of this survey. As the map shows, by far the greatest number of Chester minted coins were discovered in hoards, the majority of which are on or near the eastern Irish coast. The greatest density of finds comes from Chester itself where four hoards have been found, the largest of which is the 1950 Castle Esplanade hoard of c.550 coins (Pagan, 2012, 16-33). Slightly anomalous is the large collection of single finds and hoard finds centred on Leicester, although as the distribution maps show, these stem mostly from the reign of Æthelred II, a period of great political and numismatic upheaval, and cannot be said to reflect the normal distribution of currency from the majority of the tenth century, a situation further exacerbated by many of these coins being given provenance only from a 'local' supplier to numismatist Joseph Young. If Leicester is largely overlooked, then the distribution of finds as illustrated in *Fig. 61* reflects what might be expected about one of England's predominant mint sites: the volume of output is clearly large and is distributed over a wide area indicating that Chester-minted coins constituted a significant proportion of the currency in circulation in much of the country throughout the tenth century.

More specific trends are visible upon further inspection: despite Chester's status and high output, the distribution of its coinage within England seems limited largely to Mercia, and former Mercian territories in the East and South East. Apart from four specimens from Carlisle and Scotby dating from the reigns of Æthelstan and Edgar, there are no finds in England north of the Humber. Similarly, there are no finds from within the borders of Wessex as defined in the *Burghal Hidage*. There are few finds within the West Midlands themselves, although this may be down to a relative lack of metal detecting activity in the area, and certainly the distribution shows that the currency was in use within West Mercia. A high concentration of finds illustrates

extensive use of Chester coinage in use in Gloucester, as well as in the former Mercian territories around London, as well as in the East Midlands and the South East. These patterns can be explained by the maritime mercantile activity which would have been occurring both in Gloucester and London as well as in Chester, and indeed *Fig. 60* suggests lines of deposition along trade routes between Chester and London, and London and Gloucester, and further into East Anglia.

The high numbers of finds from hoards in Ireland are illustrative of the wealth of trade being carried out at Chester, and the popularity of English silver coinage with foreign merchants, and the pattern suggests that this trade then continued internally. The high density of finds in the Midlands is proof that the Chester mint was at the very least fulfilling its purpose in establishing English currency over the new territories of England, and the wider distribution shows that in the Midlands and South East at least, Chester played a fundamental role in supplying a wide network of trade and commerce.

*Figs. 62 and 63* map the distribution of finds from the Derby and Tamworth mints, and show very similar trends seen in *Fig. 61*, albeit on a more limited scale. Once again, the vast majority of finds come from hoards surrounding the Irish Sea – in Chester, eastern Ireland, Man and the southern Scottish Islands – with single finds being distributed throughout Midland England. What is immediately striking is the difference between distribution of Derby and Tamworth issues within England itself. With Chester's predominance of minting in the early tenth century, the wide distribution of finds throughout central and south-eastern England is only to be expected, but Derby-minted coinage is also similarly widely distributed, with single finds as far afield as London, Hereford and Caistor in Lincolnshire.

In comparison, single finds from Tamworth are relatively sparse, with only four spread across the southern Midlands and East Anglia and a single outlier in Fife. While Chester issues appear on the east coast of the Midlands, they are noticeably absent from the Danelaw border area, an area in which Derby minted coinage does appear. This lends some support to the theory that the Derby mint was partially sited to overcome a lack of trade and distribution across the border, even after the area's unification, although this theory is somewhat complicated by the extensive collection of Derby issues from the Chester hoards.

## The Derby Mint, c.899-1016

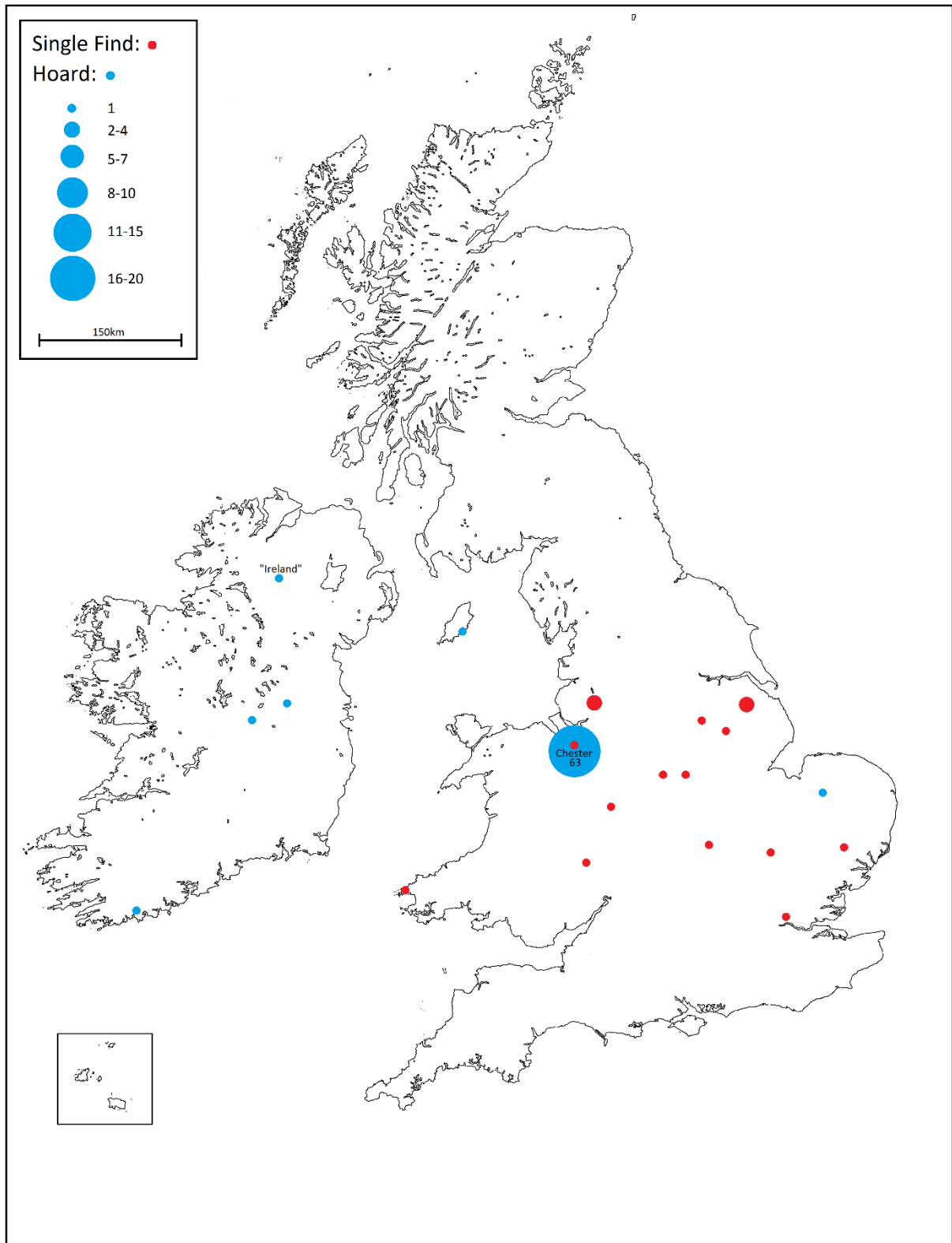


Figure 62: The distribution of tenth-century finds from the Derby Mint, based on data from SCBI, EMC and PAS sources.

## The Tamworth Mint, c.899-1016

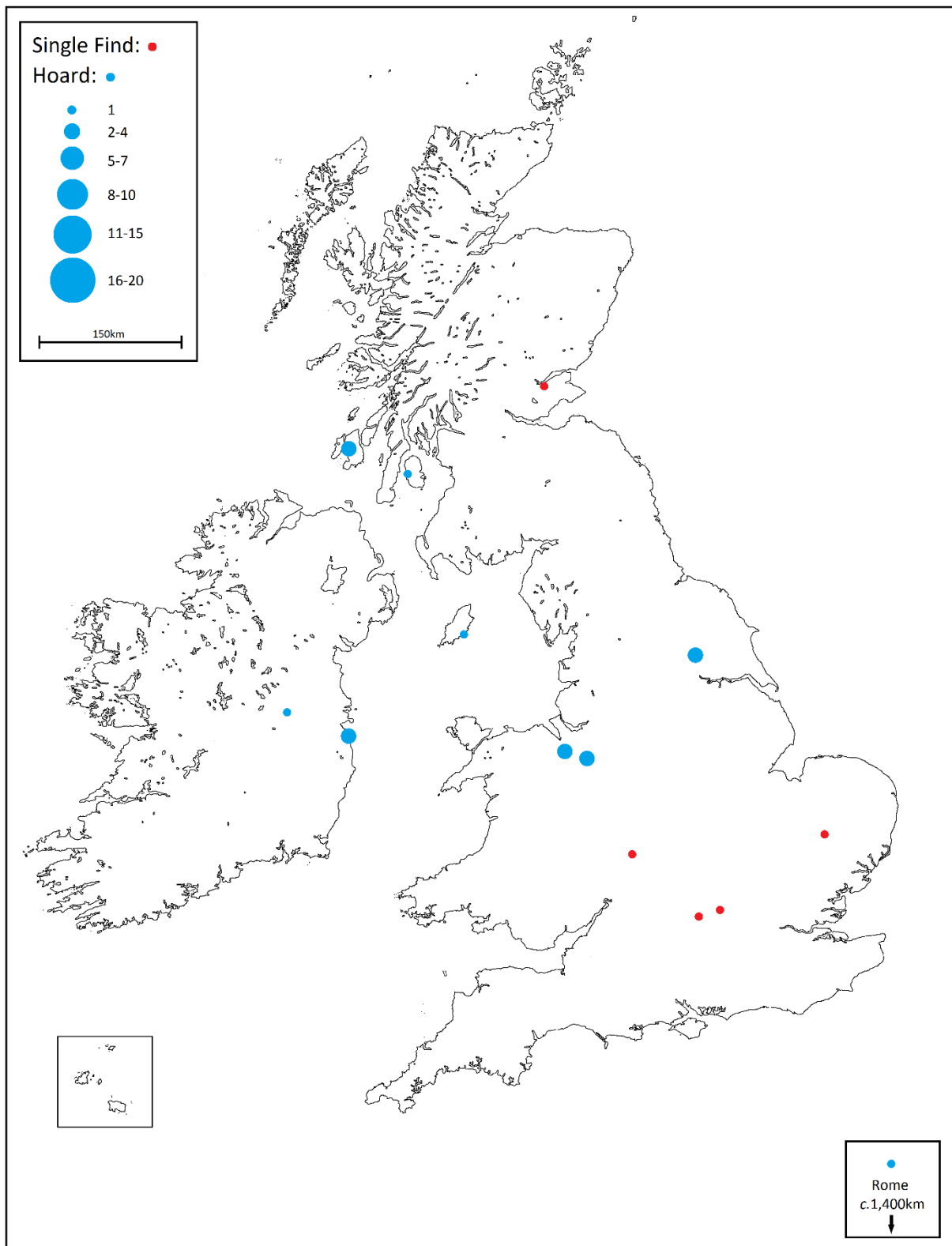


Figure 63: The distribution of tenth-century finds from the Tamworth Mint, based on data from SCBI, EMC and PAS sources.

The distribution of Derby and Tamworth finds within England suggest that both sites were part of a wider economic network, and that their coinage entered circulation throughout the Midlands. Once again, the coinage from both sites is conspicuously absent from within the borders of Wessex. The extent of the distribution also further supports that Tamworth remained more of a prestige mint site, while Derby operated both economically and politically, with a far greater proportion of Derby issues appearing to have been used in the East Midlands. Both Derby and Tamworth issues appear in Ireland and the Scottish Isles, which is to be expected if both sites were part of a trade network encompassing Chester.

Naturally the vast bulk of foreign trade coinage was from Chester, but the distribution of these other coins suggests that some traders were travelling from Derby and Tamworth to Chester, where money from their respective origins was entering general circulation in trading there. Interestingly, a far greater proportion of Tamworth coinage is found overseas than that minted in Derby. Indeed, the slight majority of extant Tamworth issues result from overseas hoards rather than deposition within England, although this is almost certainly a result of the small sample size resulting from vagaries of survival and discovery than tenth-century circumstances. Nonetheless, the greater proportion of Tamworth coinage in Irish and Scottish trader hoards suggests that merchants from Tamworth were travelling within Mercia to trade with Hiberno-Norse and Scottish traders at a much greater rate than any traders travelling across the former Danelaw border from Derby. Tamworth and Derby issues both interestingly become more prevalent in the mid-tenth century, likely a result of political events in the period.

While the scale of minting at Derby indicates that it was an important economic site, the mint activity there in the mid-tenth century was also expressly and urgently political. Productivity under Æthelstan, while higher than other Midlands mints, was substantially lower than Chester, and remained so under Edmund until an explosion of activity during the reign of Eadred (see *Fig.2* above). Indeed, there are more identified extant Derby issues for Eadred's reign than there are Chester coins. This sudden, frenetic burst of activity almost certainly stems from the events of 942, when the *Anglo-Saxon Chronicle* states somewhat cryptically that 'King Edmund...overran Mercia... and five boroughs, Leicester, and Lincoln, Nottingham and likewise Stamford, and also Derby' (ASC, MS.C, s.a. 942, Whitelock (ed.), 1961, 71). The local population, which the *Chronicle* refers to as Danes, 'were previously subjected by force under the Norsemen, for a long time in bonds of captivity to the heathen', from which we can infer an unmentioned Viking attack on the Eastern Midlands, presumably under the

command of Olaf Sihtricsson (*ibid.*). Five years earlier, the Mercians had formed an important contingent of Æthelstan's victorious army at *Brunanburh* and no mention of any attack is made in the intervening years, so the *Chronicle*'s assertion of Mercia's 'long time in bonds of captivity' is likely hyperbole, but nevertheless it must be assumed that at some point in c.941-942 that much of Eastern Mercia had fallen and had to be 'liberated' (*ibid.*, MS.C, s.a.937, 69; Downham, 2008, 345). The next year, Tamworth was overwhelmed, although not held, in another attack before Edmund was able to force Olaf to submit with superior forces at Leicester. When Edmund was killed in 946, his brother Eadred would have succeeded to a kingdom severely concerned about the king's ability to protect the Midlands whilst simultaneously trying to subject Northumbria to English rule.

In this context, an extensive programme of minting at Derby would have been an expedient means to shore up tenuous royal authority. While it should not be claimed that royal authority was capable of directly affecting the circulation of currency, the heavier distribution of Derby issues in the East Midlands indicates that the Derby mint's circulation was most extensive in the areas where its political worth was most needed. The extensive minting activity under Eadred provided valuable propaganda, both in the volume of Eadred's coinage it produced and disseminated amongst the location, and in its very being as a centre of major royal activity and projection of power. Indeed, the resurgence at Derby would have served as a strong signal to the population of the central and east Midlands that although English royal authority had temporarily lapsed, it had returned in force and had clear aims of permanence.

While the minting at Tamworth was certainly political in nature, the prestige nature of Tamworth currency would have rendered it of less immediate propaganda value than that produced at Derby. Instead, the value of Tamworth coinage would have lain in the sense of continuity it provided with Mercia's illustrious past. Æthelflæd had consciously appealed to Mercian heritage as part of her creation of a national 'narrative of triumph and resurgence' (Carver, 2010b, 144) and to ease her ascension to power in a technically foreign kingdom, and it is highly likely that this appreciation of heritage was passed on to Æthelstan at her court (Foot, 2011, 30).

The *Anglo-Saxon Chronicle* suggests that an element of Mercian independent identity remained in the Midlands throughout the tenth century. In 957, for example, Edgar 'succeeded to the kingdom of the Mercians' two years before becoming King of England, whether this was the result of a peaceful co-rule or due to internecine rivalry with his brother Eadwig (Jayakumar, 2008, 83-103) and after his death in 975, Ealdorman Ælfhere led a local insurrection which targeted many monasteries which



had supported, or were supported by, late king. (ASC, MS.C, s.a. 957, Whitelock (ed.), 1961, 74; Ibid, MS.E, s.a. 975, 78). It is thus to be expected that Æthelstan's descendants would have continued their ancestor's practice of prestige minting in order to help shore up their often potentially unstable reigns. Given the history of the site, Tamworth issues in particular would have underlined royal authority and legitimacy in maintaining control of the Mercian provinces. The high proportion of Tamworth issues which made their way into the Irish Sea trade loci, as well as the single example in Edmund's c.942 donation to Pope Marinus II, could also suggest that much of the Tamworth currency was destined for international trade. In this context, it could perhaps have served as a signifier to foreign merchants of the continuity of English rule, or a sign that old Mercian trading partners were now fully part of a wider English kingdom.

*Figs. 64-70* (below) map the distribution of finds from other West Mercian mint sites: the *burhs* at Stafford, Warwick and *Weardbyrig*, as well as Gloucester, Hereford, Worcester and Leicester. These distributions are more limited in their usefulness compared to the previous three sites, primarily due to the relatively limited production carried out at these mints, and the low number of extant coins which can be provenanced. Nonetheless, the distribution of finds from these sites may still provide an important insight into common patterns of distribution and of economic integration. They may also hint towards any differences in the roles and operation of these sites compared to the permanent mint sites established at Chester, Tamworth and Derby.

This may be a result of evolving necessities of production; minting only appears to have begun at Worcester during the reign of Edward II, accelerating during the reign of Æthelred II, part of the vast increase in minting across the country necessary to meet the cost of tribute payments, which by 1007 already totalled some 36,000 pounds (ASC, MS.C, s.a. 1007, Whitelock, 1961, 88). Because of this, the distribution of finds from Worcester cannot be viewed in the same way as those from, say, Chester or Stafford as they cannot be said to illustrate part of a new economic network or the way in which these sites integrated into them. Nonetheless, Worcester is still included in these maps because the distribution of finds can still illustrate the lengths to which currency was circulated throughout England and the extent to which Worcester was already integrated into pre-existing networks by the 970s.

## The Gloucester Mint, c.899-1016

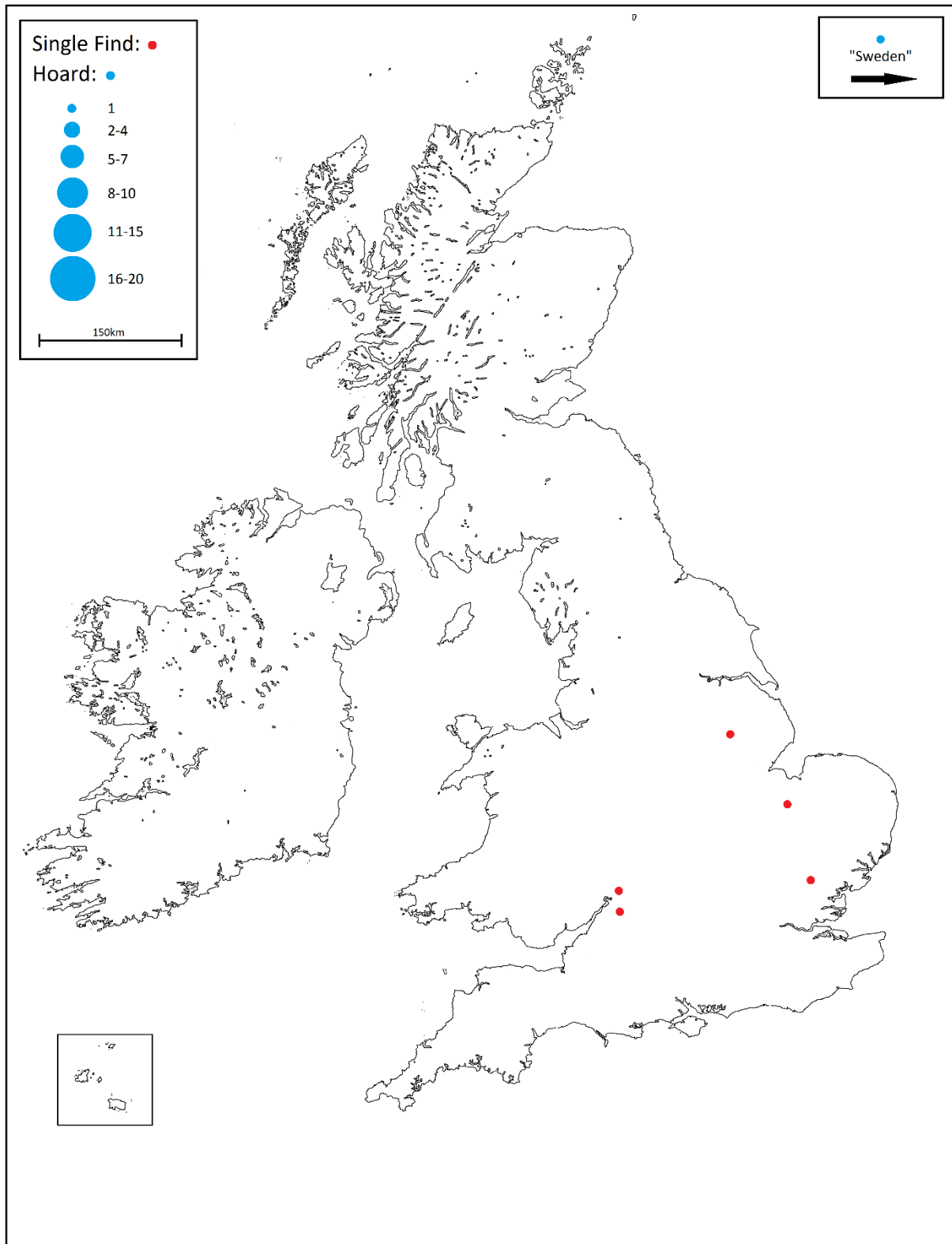


Figure 64: The distribution of tenth-century finds from the Gloucester Mint, based on data from SCBI, EMC and PAS sources.

## The Hereford Mint, c.899-1016

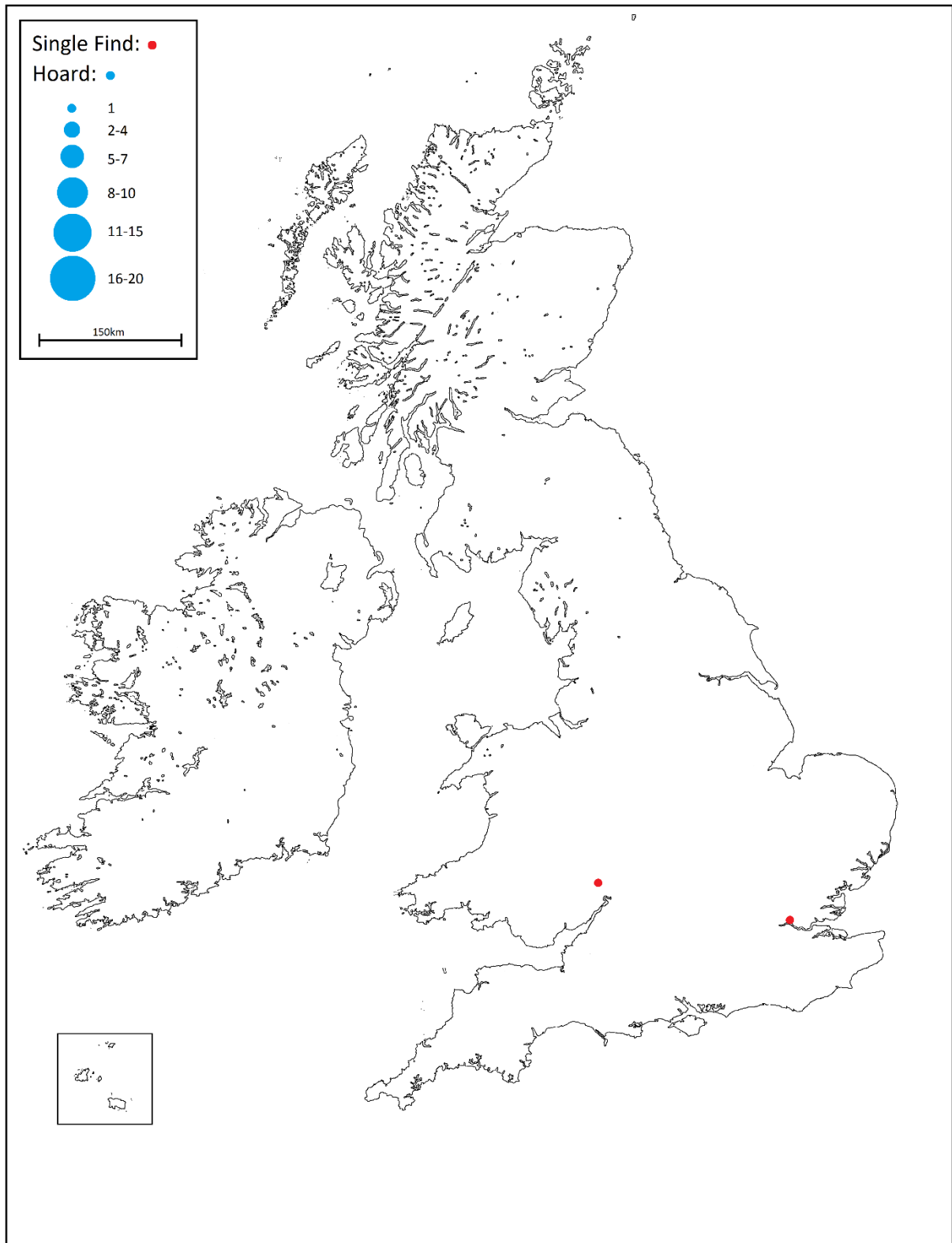


Figure 65: The distribution of tenth-century finds from the Hereford Mint, based on data from SCBI, EMC and PAS sources.

## The Leicester Mint, c.899-1016

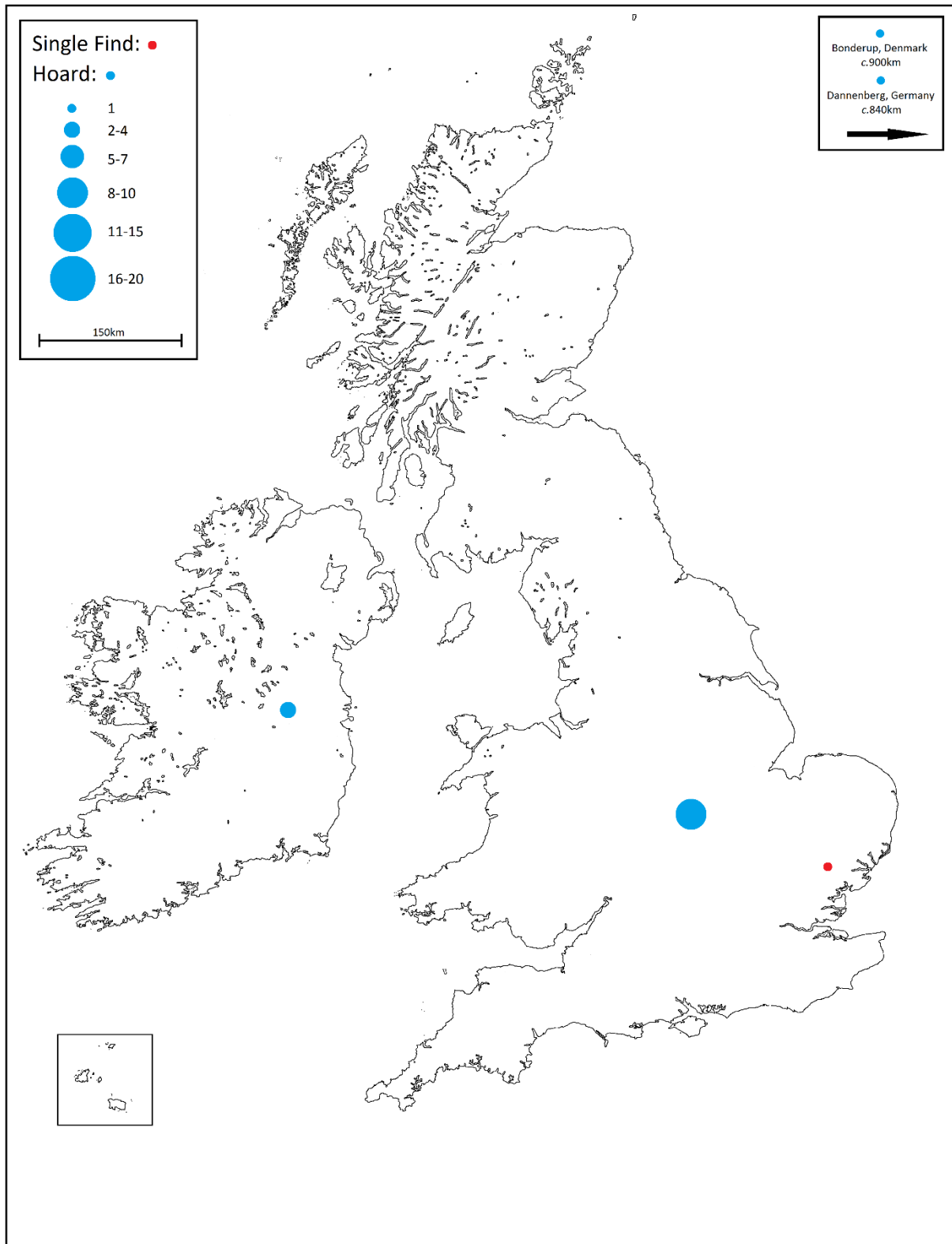


Figure 66: The distribution of tenth-century finds from the Leicester Mint, based on data from SCBI, EMC and PAS sources.

## The Stafford Mint, c.899-1016

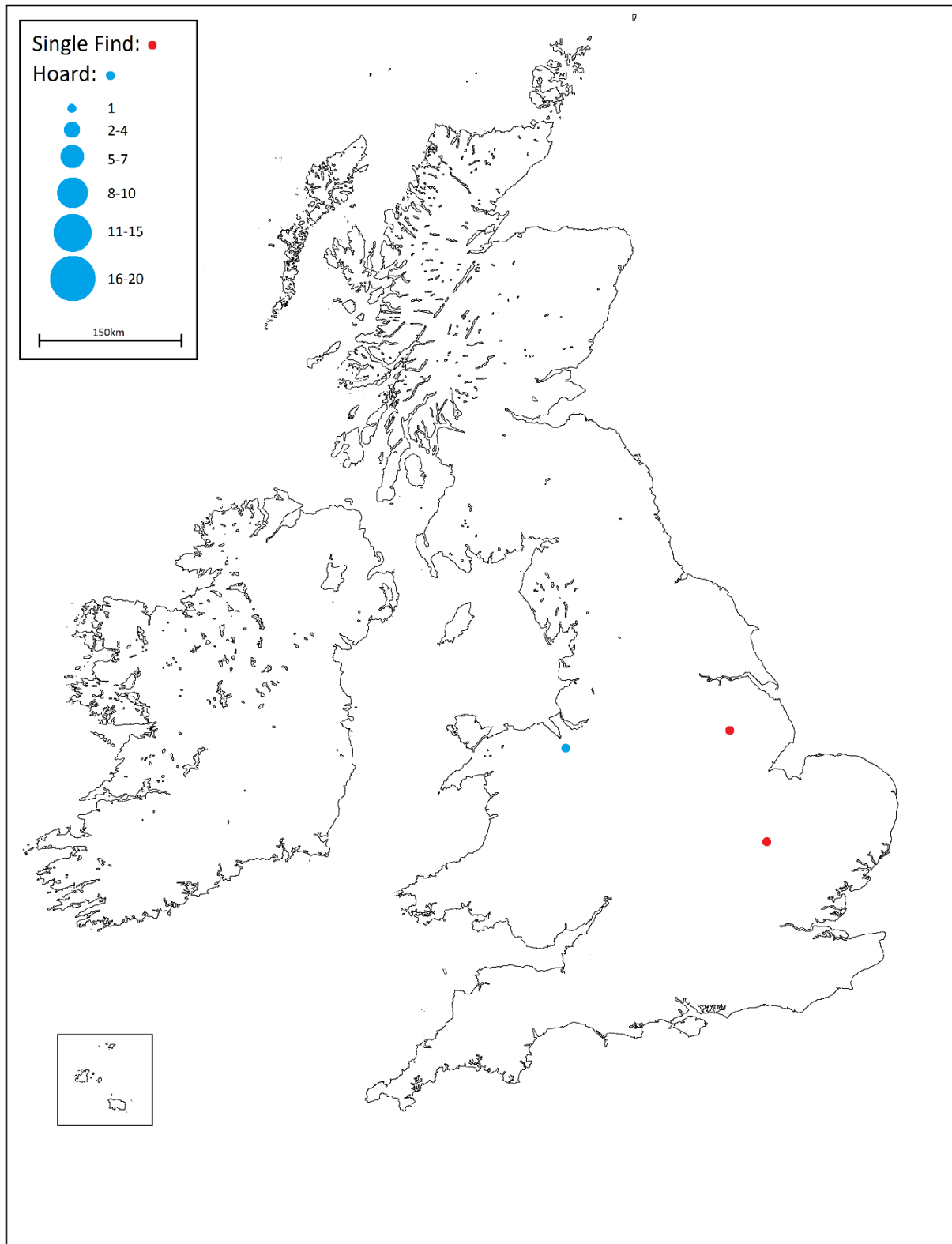


Figure 67: The distribution of tenth-century finds from the Stafford Mint, based on data from SCBI, EMC and PAS sources.

## The Warwick Mint, c.899-1016

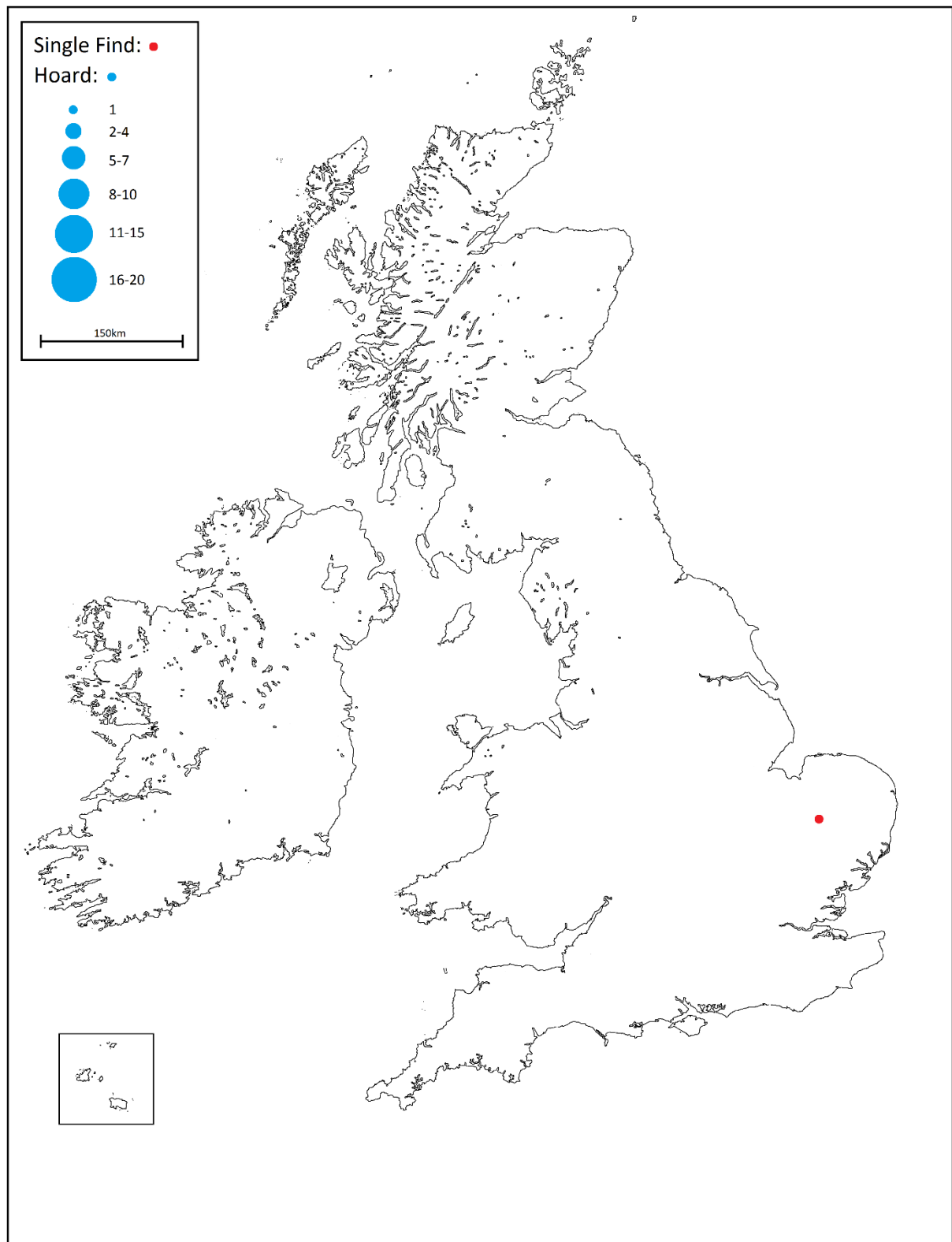


Figure 68: The distribution of tenth-century finds from the Warwick Mint, based on data from SCBI, EMC and PAS sources.

The *Weardbyrig* Mint, c.899-1016

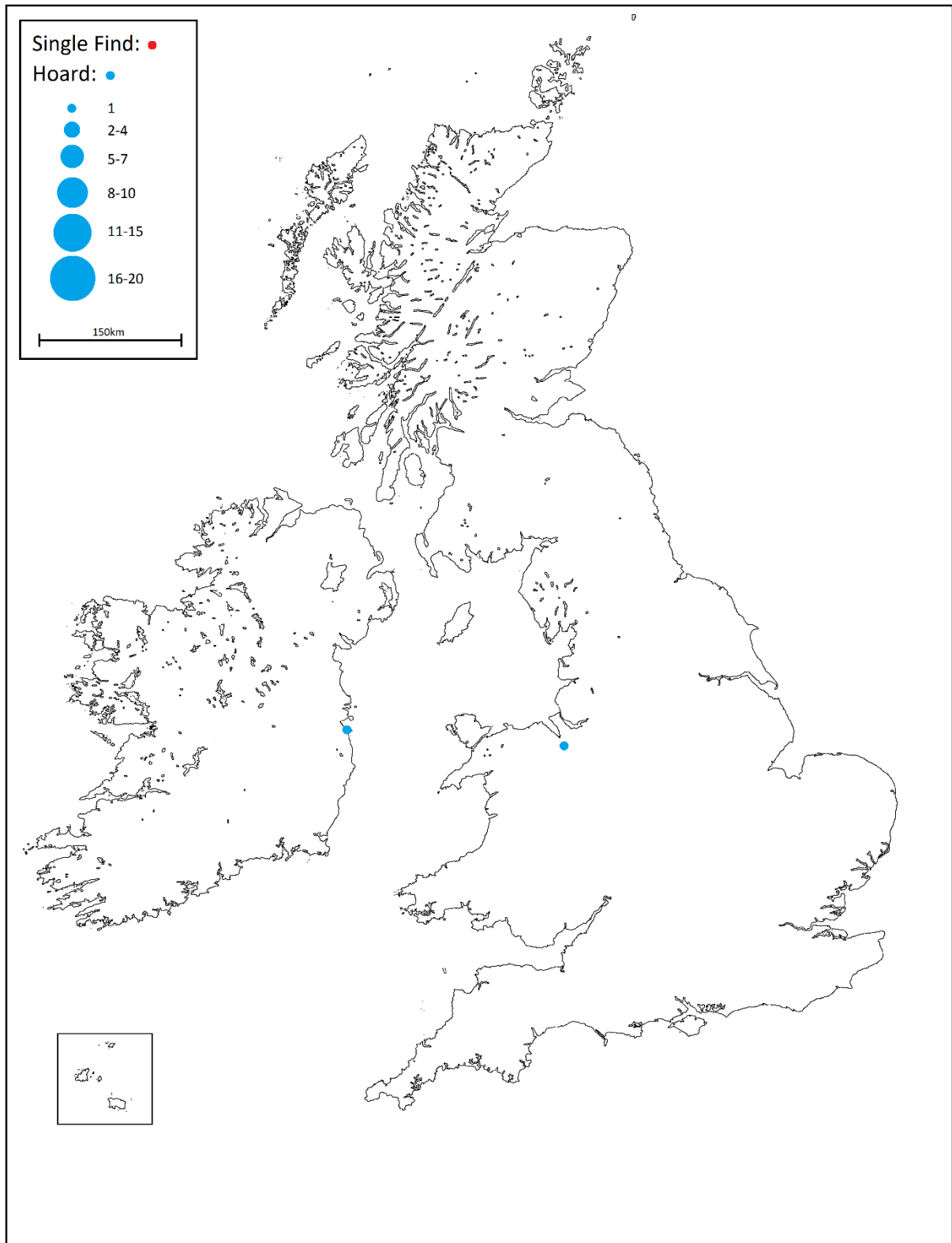


Figure 69: The distribution of tenth-century finds from the *Weardbyrig* Mint, based on data from SCBI, EMC and PAS sources.



## The Worcester Mint, c.975-1016

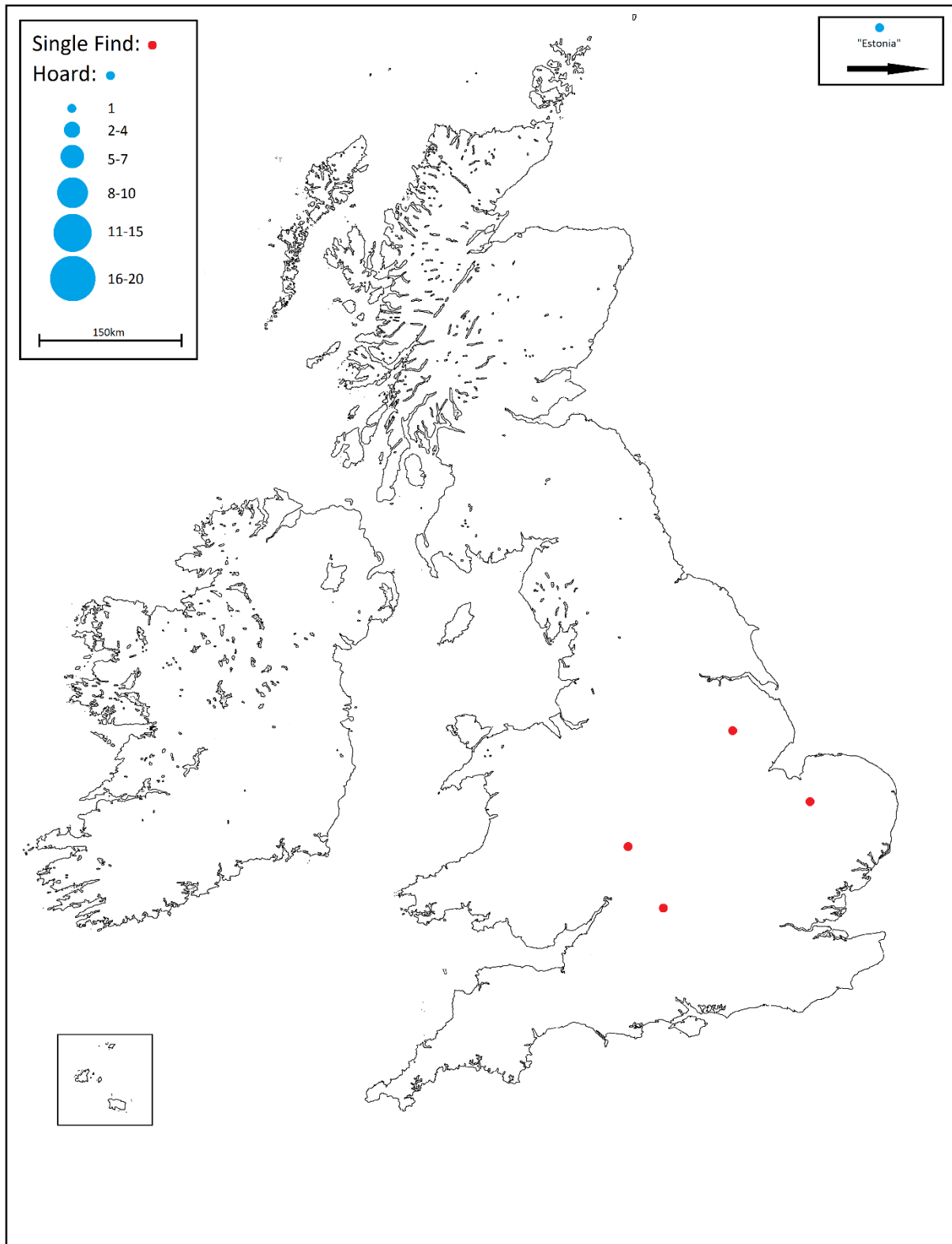


Figure 70: The distribution of tenth-century finds from the Worcester Mint, based on data from SCBI, EMC and PAS sources.

The temporary mints which opened in these burhs to produce Æthelstan's *Rex totius Britanniae* coinage appear to have been re-opened for Edgar's later coinage reform, albeit without Hereford, Stafford or Warwick. This could have been a response to the divided nature of the kingdom at the beginning of Edgar's reign, when Mercia passed to his rule from that of his brother Eadwig, or perhaps more likely was aping Æthelstan's earlier reform production as a sign of authority over the provinces (ASC, MS.C, s.a. 955, Whitelock (ed.), 1961, 74; *ibid*, MS.E, s.a. 975, 78). With the exception of Leicester, where the bulk of extant coins come from a hoard from the reign of Æthelred II within the city itself, finds from the other mints are distributed sparsely throughout the Midlands, with a single Hereford coin in London. Two Leicester coins from Æthelstan and a single *Weardbyrig* coin from the reign of Edgar can be traced to Ireland, signs that both reform coinages entered into circulation within wider trade networks. Within England itself, single finds are clustered around the edges of the Midlands, either to the East or in the South-West around the emergence of the Bristol Channel, while aside from hoards in Chester and Leicester, no temporary mint issues have been found in in the north-western or central Midlands. As typified in the case of Hereford, this distribution shows finds either in the immediate vicinity of their issuing mint, or in relatively distant loci. A relatively high loss rate in the vicinity of mint sites is to be expected, since these sites were more often than not the most convenient places for this currency to be immediately used, and the wider distribution of finds indicates that these sites were also integrated into the wider economic network alongside the more major mints. There is, however, a puzzling lack of finds from the north-west or central Midlands, where the distribution of Chester and Derby issues suggests that West Mercian issues should be in common usage.

It is entirely possible that this lack of finds is a result of the twin perils of degradation over time and the typically lax attitude of Victorian numismatists and private collectors towards recording the find sites of their specimens. A prime example of this is the Warwick mint, from where twenty-four relevant finds have been recorded in the SCBI, EMC or PAS, yet only one, a penny of Edward II found at Croxton and recorded in the EMC, has a recorded find-site. Similarly, at Hereford and Stafford, only two of thirty-eight and three of nineteen finds respectively have recorded find-sites. At Tamworth and Derby, many finds were recorded through the EMC or later editions of the SCBI thus yielding a much higher proportion of finds with recorded sites, while at Chester the much greater scale of the minting ensures a much greater spread of results as well as more ongoing finds. A more complete record of find-sites for these other mints would perhaps have yielded a very different distribution map, and it is to be hoped that over

time, finds recorded with PAS will furnish us with a far more extensive distribution map of these mints.

## Discussion and Conclusions

Both the nature and the distribution of coins from the Æthelflædan burghal mints can tell us a great deal, not only about the economy of England in the tenth century, but also about the centres in which they were produced and the networks along which they spread. Throughout the course of the tenth century, English coinage remained remarkably stable in its Troy grain weight and value, so that even Edgar's reform of c.973 did not fundamentally alter the coinage other than to reverse a slight declining trend in silver content. This in turn suggests that despite the political upheaval of the tenth century, the English economy was strong and stable enough maintain its fiscal integrity, in stark contrast to Carolingian France. It also suggests that the *burhs* which functioned as centres of economic activity had sufficiently extensive trade networks to ensure a constant and consistent supply of silver bullion necessary to maintain the currency.

The extent of these trade networks is illustrated by the distribution of coin finds, both hoards and single finds. The prevalence of West Mercian – especially Chester-issued – coins in hoards in western Ireland, the Isle of Man and the southern Scottish Isles indicates that these areas were part of a network of high-value trade with the English mainland, which the West Mercian mints, Chester in particular, were ideally suited to exploit. These networks extended throughout England as well, and the *burhs* appear to have formed their hubs, partly in thanks to laws such as Æthelstan's Grately Code, but also due to their commanding position on roads and rivers, the safety they offered merchants and the political capital to be gained from minting there. The 'temporary' mints in this survey – Gloucester, Hereford, Leicester, Stafford, Warwick and *Weardbyrig* – entered production for the creation and distribution of Æthelstan's *Rex tot Brit* series, an expressly propagandistic issue, but despite the civic centres at Gloucester and Hereford, there was seemingly little to be gained from continuing to mint there. Similarly, the *burhs* at *Weardbyrig*, Warwick and Stafford did not become sites of regular economic production, despite their apparent prestige during *Rex tot Brit* production. Nonetheless, issues from these sites can be seen in circulation at sites as diverse as Gloucester, London and Lincoln, which suggests that even these political issues entered circulation on a national rather than local scale, and that these sites were all to some extent integrated into a far reaching economic network.

Of the three 'permanent' mints, two are Æthelflædan *burhs* and one was captured by her forces. The pattern of loss and of single finds from these sites indicates that coins

from these sites were not limited to local circulation but instead were readily used, carried and traded across the country. Chester, periodically the foremost mint in England, as well as Derby and Tamworth, produced a consistent supply of coinage which was distributed extensively throughout the Midlands, an indication of the secondary value of coins as signifiers of royal power and authority and the need of the English crown to project power into the areas of the reconquered Danelaw, as well as throughout the South East and the borders of Wessex. The extensive record of Chester issues in particular within Hiberno-Norse hoard contexts illustrates the vast extent of maritime commerce which flowed to and from the new *burh*; if indeed these hoards represent surviving traders' reserves, then the complete picture of overseas trade was particularly lucrative. That English silver was clearly sought after is telling evidence as to the perceived quality and reliability of the English currency, and would no doubt have been of valuable propaganda value to the kings from Edward the Elder onwards. The scale of the trade belied by the distribution of Chester issues illustrates why Chester was chosen as a permanent mint site, alongside the significance of restoring a Roman site to such prosperity, and also explains the rapid and extensive colonisation of the Cheshire plain seen during the early Tenth Century (see Chapter 5). Early Chester issues in particular played an important role in the distribution of royal propaganda, with pictorial designs conferring not only divine support on Edward the Elder's Wessex, but also celebrating the achievements and individuality of Æthelflæd's Mercia.

The mints at Derby and Tamworth are similarly politically important, with the Tamworth mint appearing to operate as a prestige site confirming the loyalty of the former Mercian capital to the new English kingdom, while the Derby mint established English coinage throughout the newly-conquered Danelaw, and stood as a powerful testament to the power of the English crown to exercise control over a former Viking fortress. The mint also fulfilled the economic function of supporting the former Danelaw, with an apparent reticence in trade across the former border even in the mid-tenth century, with some provincialism and political recidivism still seeming to have survived as shown by the Derby minting of *Rex Saxorum* during Æthelstan's *Rex tot Brit* series.

The scarcity of finds north of the Humber can be explained by the at best tenuous English control of the North, both before and after the conquest of York, as well as the operation of the York mint, particularly during the reign of Æthelstan. It is curious, however, that there does not appear to have been large-scale circulation of currency from the Midlands to the North, despite York issues having been found in the Chester hoard (SCBI 64.117-120). Two pennies of Æthelstan from the Chester mint have been found at Scotby in Cumbria, while an Edgar Chester penny has been found in Carlisle and two from the Tamworth mint have been found at the Coppergate Hoard in York,

signifying a circulation of at least some reform coinage during periods of English control of Northumbria. The scarcity of these finds can most likely be attributed to the dissemination of York-minted coinage to Northumbrian merchants, whilst Mercian traders with West Mercian-minted coins were more likely to have plied existing trade routes with the Hiberno-Norse and throughout the former Mercian Hegemony territories to the east. As *Fig. 61* illustrates, Chester coinage was in common circulation within Kent and Sussex, which had been part of the Mercian hegemony until 825, as well as London, which remained under Ealdorman Æthelred's control until 911. From this we can infer that Mercian ties in the South East, at least economically, remained strong well into the tenth century. This also suggests that there was a clear overlap between the Mercian mints and those at London and Canterbury, and that the West Midlands were now in a position of economic influence alongside that of the traditional economic centre of the south-eastern provinces.

Interestingly, there appears to be no overlap between the Mercian mints and those of the *Burghal Hidage* sites, as no West Mercian issues have been found within the borders of Wessex. Was this merely a case of supply and demand? Certainly there is no evidence to suggest that the West Saxons controlled the distribution of coinage along any internal borders, and yet the distribution of Mercian coinage ends at sites along the traditional West Saxon border, even well into the tenth century. It could be the case that the Burghal Hidage mint sites met the fiscal requirements of the West Saxon heartlands, yet this would presume that no trade between Wessex and Mercia resulted in Mercian-issued coinage travelling into Wessex. It may also reflect a political reality that even after the English unification, trade within Mercia continued along its traditional east-west axis rather than south into Wessex.

## V: Fashion, Function and Fortification:

### Material Culture and the Proliferation of Political Control and Cultural Identity

The economic role of the *burh* in tenth-century England extends beyond the role of mint site as discussed in Chapter 4. Indeed, alongside Æthelstan's provision for minting and high-value trade as dictated by the Grately Code, these sites had scope to operate as hubs for crafts and manufacturing. Whether as productive sites or simply in their military roles as a fortified presence overlooking major transit routes, the burghal network also undoubtedly influenced the distribution and proliferation of material culture throughout their hinterlands. The extent to which *burhs* operated as productive sites, and the roles they played in material culture are complicated by the ongoing debate as to the primary role of the *burhs* themselves, and the differences between those established at pre-existing settlements and those built *de novo* (Williams, 2001, 308; Carver, 2010b, 1; Baker, 2013, 69; Molyneaux, 2015, 106-108).

Within Wessex, Molyneaux argues that Alfred and Edward may have intended for *burhs* to develop into major centres of population and trade, largely as means to exert greater political and economic control over their territory (Molyneaux, 2015, 106-107; see also Lavelle, 2003, 39). However, despite the designating of some major towns as *burhs* and the re-organisation of street plans to potentially facilitate greater urban development (Hill, 2000, 173-186), this role may have remained aspirational, with the majority of the population remaining largely rural and travelling to *burhs* only in times of unrest or when duties or trade demanded (Molyneaux, 2015, 107; Astill, 2006, 240). Lavelle notes that the 'urbanisation' of burghal sites may be a result of a continued need for fortified sites throughout the ninth and tenth centuries, with *burhs* acting as much as sites to avoid for raiders as much as they were refuges for local populations (Lavelle, 2010a, 229, 252).

Alongside earlier unsuccessful Viking sieges of Exeter, Canterbury, Rocester and London, Lavelle indicates that smaller *burhs* such as Maldon, Lydford and Watchet also withstood attacks following the resumption of Viking hostilities in the 980s and 990s, while sites such as Bristol and Chichester were apparently not attacked at all (Ibid., 249, 252). Smaller, and thus traditionally more vulnerable towns, could therefore ensure their survival and safety to a far greater degree if they were established as a *burh*, or near to an 'emergency *burh*' site (Williams 2016; Lavelle, 2010a, 262-263). A gradual urbanisation, therefore, was part of a symbiotic process, whereby productive

sites and trade enjoyed greater protection, and in turn provided the state with greater control over its populace.

In the Mercian borderlands, this pattern is somewhat different, likely to reflecting the challenges posed by the distribution of populations and viable agricultural land within these territories, as discussed in Chapter 1. Sites such as Eddisbury and Bridgnorth were fortified as military sites designed to fulfil contemporary strategic needs, and were established as garrisons distinct from ready sources of population and supply, and as such would have required logistical support from further afield. At sites such as Stafford, Carver envisioned the *burh* as 'highly regulated and inspired by an image of Rome' with a *vicus* for the production and distribution of supplies and material wares distinct from the military and governmental hub, yet with these two functions mutually dependent, with one providing the resources by which the other extends the protection and control necessary for large-scale production to flourish (Carver, 2010a). Tamworth, already a long-established Mercian royal centre, is likely to have already been a proto-urban centre with a concomitant manufacturing base, albeit likely on a very local scale. Chester, meanwhile, had lain in ruins for much of the ninth century, at least, yet by the early tenth was one of the predominant trade centres and mint sites in England (see Chapter 4). Such a rapid development must surely have also led to the further establishment of the *burh* as a productive site, or one with an extensive productive hinterland. The development of such a production capacity may have been a deciding factor in the evolution of those *burhs* which did develop an urban function as the tenth century progressed. Furthermore, an investigation of material culture will shed light on the way in which the burghal network shaped the civilian world into which it was interspersed.

This chapter will investigate the relationship between the expansion and development of the burghal network throughout the West Midlands and the production of goods and material culture, and its dispersal and distribution in the hinterlands of those *burhs*. As Chapter 4 focused on the coins produced at these sites, so this chapter will focus on two other different forms of portable material culture: ceramics and decorative metalwork in the form of strap-ends. Ceramics use within West Mercia follows a pattern quite distinct from that seen across wider England during this period (see below) and as such provides a useful case-study into the impact of royal control and the state on material culture production as well as its popular adoption. In contrast, strap-ends are a prime example of popular fashions in material culture, providing both one of the most numerically significant artefacts recorded via the Portable Antiquities Scheme, as well as one of the most easily classifiable in terms of style and date. This chapter will examine the different implications these artefacts have for further understanding both



the function and organisation of the *burhs* themselves, and the impact that the *burhs* had on patterns of settlement and trade within Mercia and England as a whole. As English territory expanded, so Æthelflæd and Edward not only recaptured land from the Danelaw, but also established or reclaimed settlements which had often not been extensively occupied since the end of the Roman period, such as Chester and Stafford, and it can be hypothesised that as these sites expanded and extended English political control, so too did they facilitate the spread of Anglo-Saxon material culture as part of a natural process of expanding an 'English' cultural identity alongside the political.

As can be seen in Chapter 2, many of the *burhs* built by Æthelflæd did not leave much by way of a surviving physical trace in the landscape. Even at sites such as Eddisbury, where the tenth-century defences are still extant, there is little evidence from within the ramparts of the material culture of those who occupied the site and maintained it. This has been used to lend credence to the theory that Æthelflæd's series was disparate and temporary, and thus historically insignificant. This judgement, however, still uses the metric of West Saxon *burhs* as proto-urban sites to define "success", and as such is inherently dismissive of the West Mercian sites. With the function of many Mercian *burhs* as garrisons in remote yet strategic locations, there was neither the population nor the physical capability to establish these sites as manufactories and centres of trade and production. Because of this, studies of the Mercian *burhs*, such as they are, have often skirted the topic of material culture, while material culture studies within Mercia are limited mostly to the cataloguing and classifying of artefacts. Bassett's work on Tamworth, Worcester, Winchcombe and Hereford, for example, focuses on the defensive ramparts of these sites, rather than any traces of the Anglo-Saxon settlement or population. Carver's extensive work on Stafford is one of few works which maps the distribution of the material culture produced at the site, although naturally this focuses on the Stafford Ware pottery at the expense of other artefacts, many of which are seemingly dismissed as 'standard' Anglo-Saxon finds (Carver, 2010b). Even then, little investigation is made into the impact of the establishment of the *burh* on the settlement and population of the local hinterland.

Investigations of the material culture of the West Midlands are themselves relatively rare, with finds outside of urban contexts only becoming more common with the modern proliferation of metal detectorists, a trend encouraged by the 2009 discovery of the Staffordshire Hoard (Cool, 2013, 1-5). This discovery has, however, shifted most analytical focus to that find and away from any attempt to describe in detail the material culture of late Anglo-Saxon Mercia (Ibid., 5). With metalwork in particular, little study has been carried out since Gabor Thomas' original 2000 classification project of strap ends and decorative metal personal wear, beyond that of Thomas himself (2003,

2004). At the time of Thomas' work, there had been very few finds within Mercia, and no real analysis could be carried out of what these represented. It is only now, with the assistance of the Portable Antiquities Scheme (PAS) and ongoing classification work of this database carried out by Robert Webley at the British Museum that more finds within Mercia have come to light. This allows for a new analysis of the material culture of tenth-century Mercia, in particular one which hopes to move past the previous focus of the *burh* sites themselves, and focus on the hinterlands of the *burhs*. This will investigate and analyse the extent to which these sites, even those which did not directly produce material culture, nonetheless impacted the population and culture of the landscapes in which they were situated, and the material culture traces left behind as a result.

Central to this research is the Portable Antiquities Scheme (PAS). Founded by the British Museum, PAS represents a continually updated database compiled of portable material culture archaeology usually found by members of the public, metal detectorists and local archaeologists which are then assessed, dated and catalogued by finds liaison officers (FLOs) at a county level before being uploaded to the national database. With a focus on portable antiquities, the scheme by definition focuses on those elements of material culture, such as pottery sherds, coins, metalwork and jewellery that might otherwise be overlooked by an investigation focusing on the excavation of a settlement or physical landscape, and offers an insight into the spread of those material items beyond the walls of towns and villages. This is largely due to the modern rise in popularity of metal detecting as well as the internet allowing for much more widespread discovery and rapid classification and cataloguing of finds in more remote locations, as well allowing sites to be 'surveyed' without the need of organising major archaeological investigations. In a total of 76,329 objects in 57,383 records (accurate as of 01/12/16, [finds.org.uk/database/statistics/annual](https://finds.org.uk/database/statistics/annual)), 42,665 have been recorded since 2014.

The intrinsic caveat of this discovery is that by its very nature, PAS favours the discovery of metal objects at the expense of other items of material culture. Indeed, as of December 2016, 64,384 of 76,329 objects recorded on PAS, 84.35%, were discovered through metal detecting activity (Ibid.). For this investigation, however, this is less of a problem, and also means that a great number of finds have only recently been discovered, and have not yet entered published literature on the period. The use of PAS in examining the deposition of single finds of coins has already been seen (see Chapter 4), and again it can be hoped that, in providing a corpus of finds from outside of those settlements already subject to extensive excavation, a much wider picture of the dispersal and use of portable elements will be seen.

There are some inherent issues and limitations with the use of PAS databases in this study. As previously discovered, the overwhelming weight of metal finds in the record can give an artificially inflated picture of the supremacy of metalworking within a particular material culture, when it is more likely that other materials simply have not survived or not been discovered. By its very nature the scheme records only those objects which have been recorded in open field sites or areas more accessible to informal archaeological interest, with discovery often by happy accident than through targeted excavation. Thus although the finds provide a picture of the random deposition of artefacts, it is a picture defined by the vagaries of archaeological survival of artefacts on land often disrupted by agriculture, owned by those amenable to the presence of metal detectorists and walkers, and the personal preference of those detectorists and local archaeologists as to where they investigate. Indeed, 38,367 of total finds within PAS (50.27%) are found in the context of cultivated land, although for a further 33,547 (43.95%), no context was given. Within the West Midlands, 2,753 of 3,285 objects were discovered through metal detecting, although only 1,318 (40.06%) were found on agricultural land, with 1,822 (55.46%) having no land use recorded for their find site (accurate as of 01/12/16, [finds.org.uk/database/statistics/regional/region/41426](https://finds.org.uk/database/statistics/regional/region/41426)).

Within the context of West Mercia, this means that the PAS database represents areas of agricultural hinterland rather than the *burhs* themselves. Conversation with members of the Tamworth and Lichfield Search Society, a member of which was responsible for the discovery of the Staffordshire Hoard, clarifies that while some discoveries are due to luck, the majority of detectorist activity, at least within larger groups, is more carefully planned to survey areas where historical activity can be reasonably suspected in order to maximise the impact of limited time and equipment; in the West Midlands, this generally denotes land along the route of the Roman road network and peripherally to *Domesday*-listed settlements. This search pattern therefore fortunately coincides largely with the areas in which tenth-century Anglo-Saxon activity might be reasonably expected to develop in the wake of the burghal network, albeit at the potential expense of surveying more isolated areas.

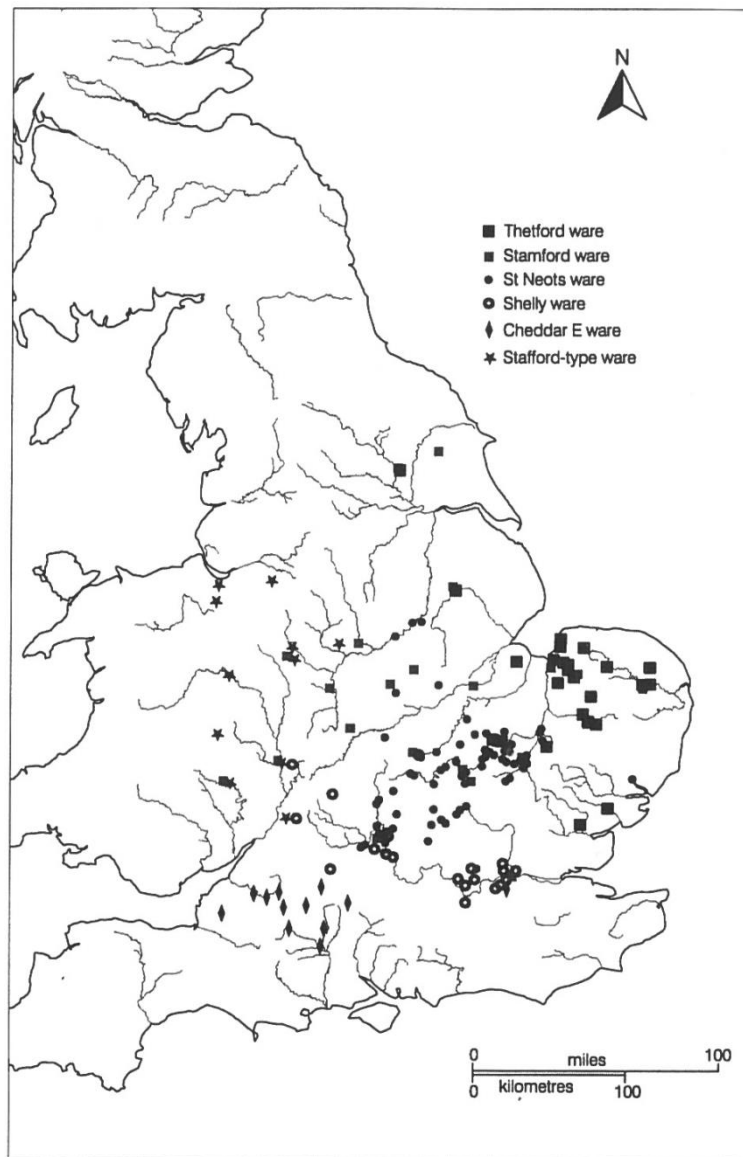
As is often the case with objects found in the context of disturbed agricultural land, many of the items recorded with PAS are severely damaged or degraded. This means that in some cases, the identification and categorisation of finds can be tentative at best. Particularly in the case of decorative metalwork, multiple finds which had previously been recorded as book clasps have since been reclassified as personal wear items, as their find sites would make the random deposition of books anomalous at best. Despite these difficulties, however, PAS represents the most comprehensive database of recently-discovered and largely unpublished material culture finds in the

UK and, even if incomplete, provides a particularly useful picture of the dispersal of these finds outside of areas of main archaeological curiosity.

## Ceramics

Ceramics form a significant part of the material culture of Anglo-Saxon England, and the tenth century sees resurgence in both the quantity and quality of ceramic production following a nadir during the height of Viking attacks on England during the ninth century (McCarthy and Brooks, 1998, 62; Blinkhorn, 2014, 157-158; Higham, 2014, 133). Carver correlates the burgeoning of ceramics production with the expansion of the burghal network throughout England, identifying the production of significant type wares from Stafford, Stamford, Thetford, York, St. Neot's and Cheddar as originating from either within *burhs* or areas under the auspices of their protection, with the inference that the protection of the *burh* network and their mandated status as trade hubs allowed for a surge in artisanal production and the easier accrual of materials and distribution of product (Carver, 1999, 42; 2010b, 67-73). Within the West Midlands, the predominant form of ceramic material culture is Stafford Ware, which likely began production at the *burh* immediately following the foundation of the site in 914, on what Carver suggests was Æthelflæd's behest. (Carver, 2010b, 67). It would certainly be fitting for Æthelflæd to follow her father's example in 'giving instruction to all [his] goldsmiths and craftsmen...making to his own design wonderful and precious new treasures (Asser, §76 in Keynes and Lapidge (eds.), 2004, 91).

As *Fig. 71* shows, the distribution of ceramic material culture in the West Midlands, and Stafford Ware in particular, follows a curious pattern which is contrary to that which appears in the south and east of England during the tenth century. Although the production and use of ceramics does increase in line with the rest of England, Stafford Ware is distributed over a large geographic area but only in a very narrow band of sites. Indeed, Stafford Ware has been found in many of the other Æthelflædan *burhs*, but is extremely rare outside of this setting. A record of Stafford Ware finds compiled in 1986 at the end of excavations in Stafford found that apart from the approximately 72,000 sherds recovered within Stafford, traces of Stafford Ware had also been found in Hereford, Chester, Shrewsbury, Lichfield, Dublin, Rocester and Barton Blount (Carver, 2010b, 81; see *Fig. 2* below). By 2010, further specimens had been found in Gloucester, Tamworth, Cold Norton, Grange Cow Worth in Ellesmere Port, Tatton Park, Leintwardine and Wroxeter (Ford, 1999, 18; Vince, 2004).



*Figure 71: Map of tenth-century pottery type distribution from Carver (2010b). Note the sparse nature of ceramic finds in the West Midlands, especially compared to those of other types to the South.*

The overwhelming majority of finds from this distribution come from burghal sites, or significant tenth-century Anglo-Saxon centres, with a paucity of finds from rural sites. Outside of Stafford, greatest quantities of finds were located in Hereford (395 sherds), Shrewsbury (192 sherds) and Chester (156 sherds) (Carver, 2010b, 81; Higham, 2014, 133). Although not a burh as listed in the Mercian record, Shrewsbury was an important mint site and likely defended, linked via Watling Street to Penkridge and the burh at Stafford, and via Wroxeter to Bridgnorth (see Chapter 2). Finds in other contexts, particularly in rural sites, are in particularly small quantities, usually in single sherds compared to the much larger finds in urban and burghal locations (Vince, 2004). Nineteen sherds have been recovered from Lichfield, a major Mercian episcopal centre, however only single sherds have been recovered from Gloucester, Tamworth or Wroxeter.

The relative lack of pottery finds in a rural setting within the West Midlands when compared to the situation in the south of England has led Vince to suggest that Mercia was effectively aceramic during this period, and that ceramic ware was either being imposed from above, or only cautiously adopted as a result of growing West Saxon cultural influence (Vince, 2004; McCarthy and Brooks, 1998, 62)). He does concede, however, that the relative paucity of ceramic finds may be simply due to their not having yet been discovered, which Higham in turn attributes to the dispersed nature of Mercian settlement and the interspersed nature of settlements and towns with large areas of closes, woodlands and meadows (Ibid; Higham, 2014, 133). Even with the recent proliferation of material culture discovered and catalogued through PAS, ceramics remain rare; this is most likely due to the inevitable bias of PAS towards artefacts found through metal detecting. Indeed, although some sherds of later eleventh- to fourteenth-century ware have been found around Stafford and a mid-Saxon or late Iron Age rim sherd found in Shropshire, only one recent find of potential Stafford Ware in the West Midlands is known to PAS: a single sherd from a Late-Saxon large storage vessel found near Newport, just north of Telford (HESH-68F9E4) likely to be either Stafford or Stamford Ware.



*Figure 72: HESH-68F9E4 - Body sherd from a large pottery vessel most likely of late Anglo-Saxon manufacture, similar to both Stafford and Stamford types. The sherd is similar in fabric to Stafford Ware in its use of quartz sand, colouration, and lack of glaze. Image from PAS.*

Stafford Ware as a type was identified and typified during Carver's excavations at Stafford, and is the only known type of West Mercian-produced ceramic from the early- to mid-tenth century, however there remains little by way of interest in it, perhaps because of the paucity of finds to analyse. Carver's excavations at Stafford discovered multiple sites of dedicated pottery manufacture, the most significant within a fenced

area bordering Tipping Street, just to the east of the hypothesised burghal defences (ibid., 45). This contained two large kilns approximately 3m long and 1.5-2m across and radiocarbon dated to 770-990 and 780-1000 respectively, with the presence of oak heartwood within the samples suggesting activity in the later end of this range commensurate to production beginning in 914 (ibid.). One kiln may have been experimental; however, the other appears to have been in near-constant use producing large storage jars, with a capacity estimated by Cane of 40 cooking pots at any one time (Cane, 1988, FR 8.2.3.).

Both kilns at the Tipping Street site were surrounded by numerous clay scoops and a dense cluster of disposal pits containing over 17,000 sherds of 'wasters', or failed pots, and a well that appears to have been constructed after the kilns as an improvement to the water supply (Carver, 2010b, 77-79). A smaller kiln to the south excavated in 1977 yielded 1,200 wasters. A third site on Salter Street housed another kiln 1.94m long and 1.2m across with a similar, if somewhat lesser, capacity to those found on Tipping Street (Ford, 1999, 11-36). The extent of the ceramic production sites at Stafford and the number of wasters found alongside evidence of extensive butchering and baking at the burh has led to the conclusion that the 'prime function' of the original Æthelflædan burh was 'the production of provender and pots on a large scale, presumably in support of some group of dependent persons, such as an army' (Carver, 2010b, 165; Carver, 2010a).



Figure 73: Examples of Stafford Ware from excavations at the *burgh*, from Carver, 2010b

Stafford Ware had originally been considered as 'Chester Ware', as the first identified specimen was a pot containing a hoard of silver pennies found at Chester's Castle Esplanade in 1950 and deposited around 970 (Blinkhorn, 2014, 159; Dolley and



Metcalf, 1961, 137). No wasters or production tips have been found in Chester, however, and given the extent of specimens from Stafford, the type was reclassified as Stafford Ware in 1980 (Carver, 2010b, 79). As a type, Stafford Ware is clearly modelled on the Roman Trent Vale Ware produced in the region centuries previously, and there are distinct similarities in appearance both in style and form (Carver, 2010a). This detail is significant, as Astill argues that most domestic pottery in England during this period is visually indistinct (Astill, 2006, 245). With intact surviving specimens of Trent Vale Ware still extant, it must be assumed that the Mercians similarly had access to Roman pottery and the design of Stafford Ware was part of a conscious effort on the part of Æthelflæd to emulate Roman history, as well as make a distinct Mercian design.

Fig. 74, below, is a new map of the distribution of Stafford Ware pottery find sites, along with the locations of the Æthelflædan *burhs* and major West Mercian urban centres. As can be seen, the proliferation of find sites is most prevalent near *burhs* and major settlements. The distribution of finds in Cheshire and Staffordshire in particular appears to be clustered in areas within close proximity to the *burhs* or to the Roman road network which connected them. One curious exception is the small collection of sherds found in Dublin (Ford, 1999, 31). Given the numismatic evidence of trade between Chester and the Hiberno-Norse settlements (see Chapter 4), this find would suggest that Stafford Ware either provided storage for items traded along this route, or was itself traded across the Irish Sea, albeit in limited quantities, implying a connection to a wider commercial network but raising questions as to why it was not more widely distributed throughout England.

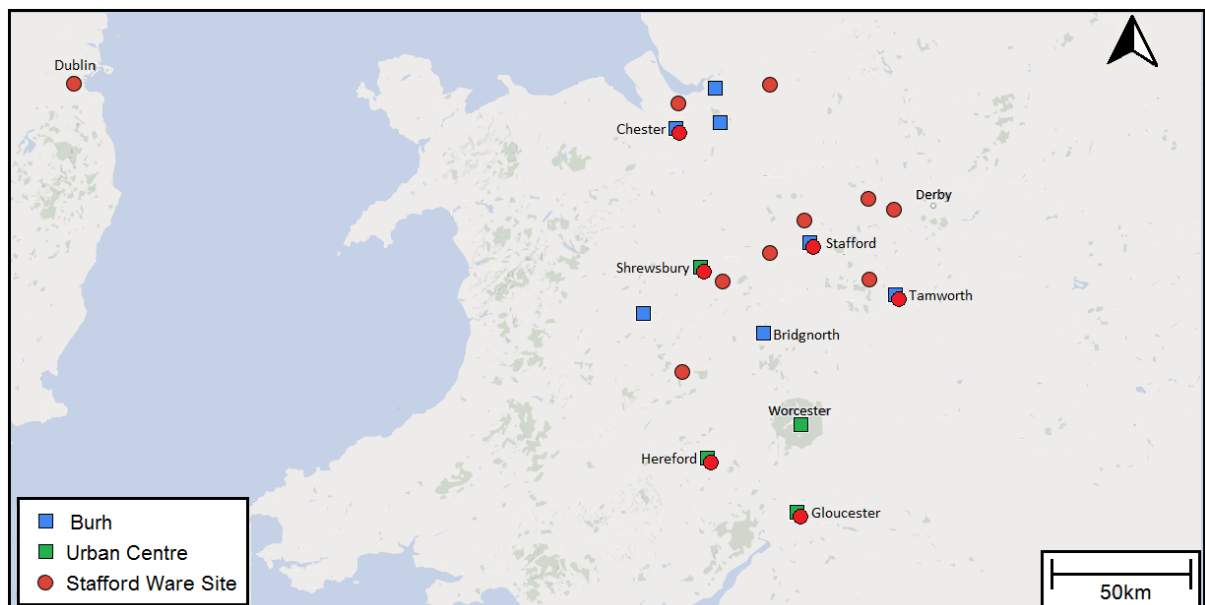


Figure 74: The distribution of Stafford Ware pottery finds. Base map, Google Maps (2016) with annotations author's own.



The distribution of finds seen in *Fig. 74*, and in particular the cluster of finds within Staffordshire itself, is curious for the associations between Stafford Ware find sites, and sites of strategic or defensive importance within West Mercia. *Fig. 75*, below, overlays the find sites within Staffordshire and Cheshire with the locations of *burhs* and sites with Anglo-Saxon defensive toponyms as discussed in Chapter 3, and although only some sites correlate on that particular metric, nearly all of the Stafford Ware find sites can be seen to have had some form of military connotation. Excluding Dublin, three find sites are not shown in *Fig. 75*: Gloucester, Hereford, and Leintwardine in northern Herefordshire.

Although not listed as *Æthelflædan burhs* in the *Mercian Register*, both Hereford and Gloucester were fortified by *Æthelflæd*, and clearly maintained a military presence, as forces from both towns co-operated with burghal garrisons in actions against a Viking army in 914 (ASC MS.B, s.a. 914, Whitelock, 1961, 63). Leintwardine in Herefordshire not only bears an Anglo-Saxon defensive toponym, but also is a site of a former Roman fortress at *Branogenium* and is linked to Wroxeter, and by extension Stafford, by a southern spur of Watling Street (Dorling, 2014, 5). As illustrated in Chapter 3, Leintwardine is likely connected to the tenth-century signalling and surveillance network via at least two *tōt* sites, its own *weard* toponym suggesting that it functioned as a refuge and local defensive node. Indeed, while the Anglo-Saxon settlement at Leintwardine developed mostly outside of the former Roman defences, the Stafford Ware recovered there was found inside the earthworks, near the site of the Anglo-Saxon church, implying that the Roman earthworks remained a potentially militarised site which possibly delineated either a high-status compound, or an occasional refuge within which it was practical to site a valuable church building.

Beyond Leintwardine, Stafford Ware find sites as shown in *Fig. 75* correlate with two further 'defensive' toponym sites as shown in Chapter 3, as well as the finds recorded at the *burhs* of Stafford, Tamworth and Chester. The first of these is at Cold Norton in Staffordshire, which sits at the base of Pire Hill at the centre of Pirehill Hundred (*Fig. 75*, 'A'), a likely beacon site and the hundred moot-point (see Chapter 3). The second is adjacent to Beacon Hill in Lichfield, overlooking the junction of Watling Street and Ryknild Street (*Fig. 75*, 'B'). Although further find site locations are not so directly correlated, they nonetheless suggest deposition in the context of military sites or activity.

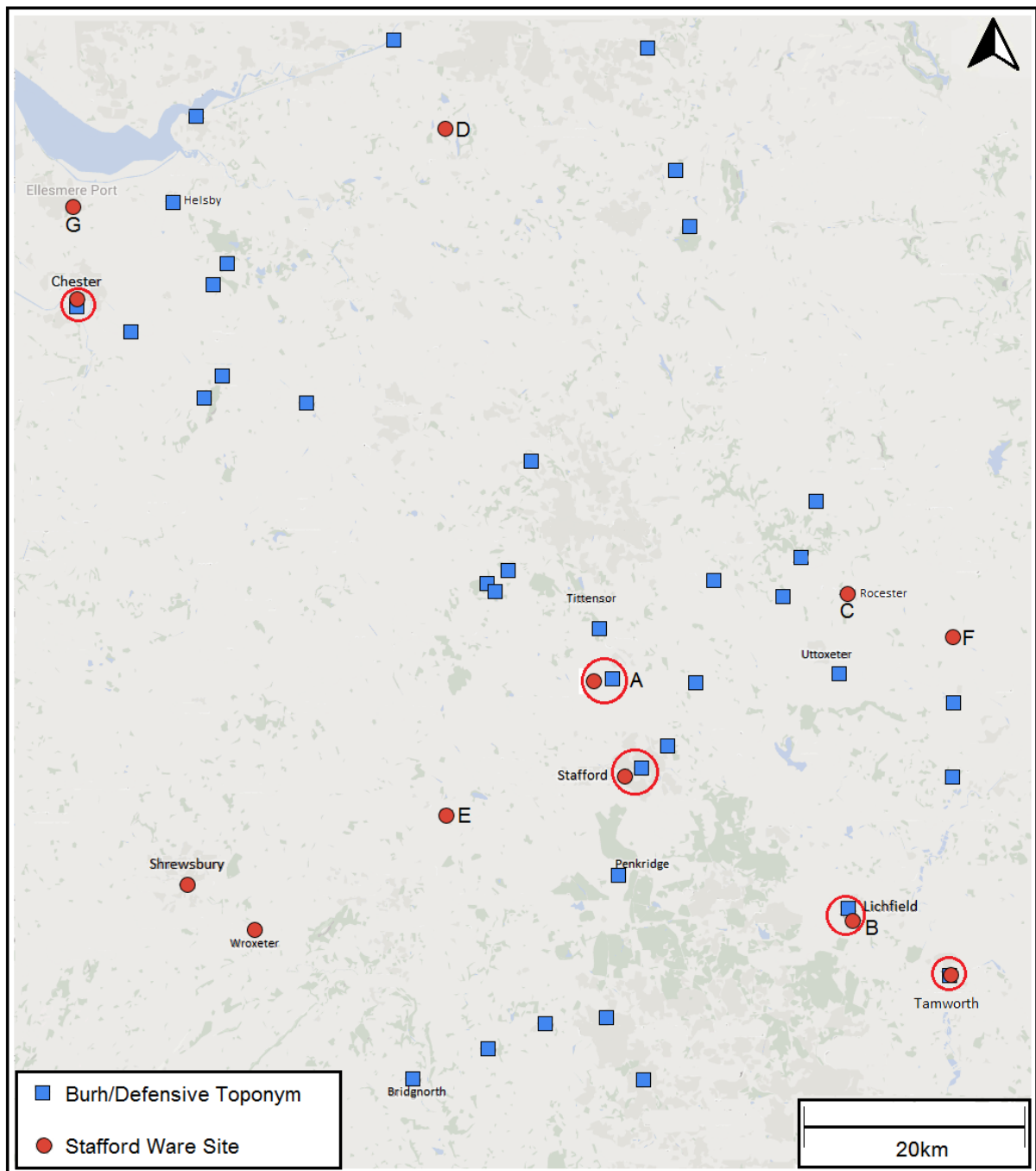


Figure 75: Distribution of Stafford Ware find sites and West Mercian defensive sites seen in Chapter 3. Circles illustrate find sites at *burhs* or defensive toponyms. Letters are referred below. Base map, Google Maps (2016).

As at the previously denoted sites, deposition along the Roman Road network is common. Site 'C' in Fig. 75 is within Rocester, a Roman fortress which lies on Rykeneld Street, and by the tenth century was on the border between Mercia and the Danelaw, with evidence of Anglo-Saxon re-occupation from the late ninth century onwards (Kelleher, 2006, 5). Although not a *tōt* or *weard* site as mapped in Fig. 75, it was, as discussed in Chapter 3, intervisible with Toot Hills at both Uttoxeter and Hollington. While Rocester is unlikely to have been given major *burh* status, its strategic location would have placed it on the immediate front line with the Danelaw

until the capture of Derby in 917. If Mercia did re-occupy the site in the late ninth century, it was likely as a frontier post, and it is probable that a small garrison may have been kept there to facilitate a defence in depth with reinforcement from the burghal garrisons at Stafford or Tamworth. Site 'D', above, is Tatton in Cheshire. Although not immediately militarily or strategically valuable, the Anglo-Saxon settlement there was based on an earlier Romano-British farming complex and sits abreast a now-defunct road between Rostherne and Knutsford; this was part of the Roman Kind Street which linked with Watling Street at Northwich and thus connected Edward's *burh* at Manchester with Æthelflæd's at Chester and Eddisbury (NMR: SJ 78 SE 8; Codrington, 1905, 90-95). It is likely, therefore, that this route would have seen substantial military foot-traffic. The find site of HESH-68F9E4 (see *Fig. 72*) also appears to be peripheral to the Roman road network. Site 'E' is 15km from Stafford near the Norman settlement of Newport, but in the tenth century was between two Anglo-Saxon settlements. Attested to in a 963 charter of King Edgar to a Wulfric, these are *Eastun*, identified as Church Aston, and the neighbouring *Plesc*, which had an *ære heh stræte* or 'ancient high street', and is approximately 12km north of Watling Street (S723).

Site 'F' is at Barton Blount, excavated in 1968-9 and site of a deserted medieval village. Recorded in *Domesday* as *Barctune* with a population of 31 households, Beresford's excavations of timber buildings and earthworks suggested the site was first settled in the early tenth century, with both Stafford and Stamford Ware found alongside quern stones, spindle whorls and whetstones (Beresford, 1975, 30-40). Although this is a civilian settlement rather than a military context, the foundation of a wholly new settlement on the frontier within 15km of Derby can be interpreted either as an exhibition of Mercian aggression in seizing territory within the Danelaw as a prelude to attacking Derby, or as a conscious attempt to create a definitively 'English' hinterland around the town following its capture. Either option would likely be directed from above, and require a logistical capability for which Stafford Ware was explicitly designed.

Of the other find sites, Shrewsbury was a significant tenth-century Mercian town and mint site, with probable substantial earthwork defences, and thus by extension a garrison of some form, while Wroxeter lies on Watling Street and oversees a strategic river crossing which links Watling Street with the Roman road leading to the *burh* at Bridgnorth (Rahtz, 1977, 127; Baker, 2010, 98-9). Although significantly smaller than the Roman city which had once occupied the site, Wroxeter retained much by way of its Roman defensive circuit, and shows strong evidence of Anglo-Saxon occupation in the district overlooking the river crossing, a strategic location for a small garrison force or local stronghold under the protection of the Bridgnorth *burh* (NMR SJ 50 NE 10).

Although there is not yet any apparent Anglo-Saxon connection with Grange Cow Worth (*Fig. 75, 'G'*) beyond the presence of Stafford Ware, the distribution and nature of the other find sites heavily supports Carver's hypothesis that Stafford Ware was created on Æthelflæd's behest with the aim of recreating historical Roman military logistical capacity explicitly in mind. The aceramic nature of Mercia before the tenth century and the lack of widespread finds in a rural setting combined with the presence of all but two find sites in locations which were defensive in nature, likely to maintain garrisons, or situated upon strategically important routes along which Mercian forces were likely to pass suggests that Stafford Ware ceramics were a form of material culture imposed from outside onto Mercia and originally conceived and implemented with a purely military, or at least state-run logistics capacity in mind. It is most likely this was brought about by Æthelflæd directly, as she brought West Saxon ideas and an awareness of Roman history into the Mercian court.

The design, centralised production and distribution of Stafford Ware to such a wide spread of Mercian military sites against the context of a previously apparently aceramic material culture is a good indication of the logistical and organisational capacity of Æthelflæd's government, especially considering the size of the production facilities established and that potters as well as workshops would presumably have necessarily been relocated to Stafford in order to begin the industry there. Stafford Ware does not remain the sole example of Mercian ceramic material culture, however, and there is some archaeological evidence that by the late tenth century, some of the West Mercian *burhs* were enabling the development and distribution of a variety of smaller types and wares. Excavations in Gloucester in 1978-9 of both waster pits and sherds identified a 'Gloucester Late Saxon Ware' appearing in both handmade and wheel-thrown varieties (Bryant and Heighway, 2003, 145; Vince, 2004). This ware lacks any local antecedents, but does bear close similarity in design, if not fabric, to a series of types found in Wiltshire and Hampshire likely originating from Hamwic, suggesting that the potter responsible trained in the region, or moved to Gloucester from Hamwic during the late tenth century (Timby, 1988, 112; Vince, 2004). Gloucester Late Saxon Ware has also been found at Hereford, along with potential evidence of a nascent Hereford Ware which has also been found at Winchcombe, indicating that by the start of the eleventh century a new local tradition of popular ceramic use was starting to develop, distinct from that begun by, and indeed likely limited to, the state (Vince, 1985, 62 and 37-41).

It seems likely that this organic development of a ceramic culture is due more to the network of trade and transport links between *burhs* rather than any 'trickle down' of ceramic use from the state level to the popular; Stamford Ware has been found in

Hereford and Shrewsbury, St. Neot's Ware in Hereford, and Shelly Ware in Gloucester and Worcester, indicating that outside ceramics were entering the West Midlands through trade, at least to some small degree (Vince, 1985, 6; Carver, 2010b, 70-90). With the exception of Shrewsbury, however, the use of ceramics in areas along the Danelaw frontier and in Staffordshire and Shropshire remains limited purely to Stafford Ware in fortified sites and along Roman roads, although this is, of course, dependant on the current limits of evidence from the Midlands. This suggests that a gradual adoption of ceramic use within the West Midlands did not come about because of the imposition of a state ceramics industry, but rather developed in those regions closest to areas with a pre-existing tradition of ceramic material culture, where the spread of material wares, designs and crafting expertise would be facilitated or even encouraged by the presence of *burhs* as hubs of trade as well as transport. The lack of an organic growth of ceramics use along the Danelaw frontier by contrast suggests that whilst Æthelflæd's state was adept at addressing logistical concerns and organising on a wide scale, it was less able to directly influence the development of the native material culture of the people it ruled.

## Metalwork

Decorative metalwork is a key facet of Anglo-Saxon material culture, and one which takes many varied forms. Despite its unassuming nature, one form in particular is particularly widespread, especially well represented in finds with the PAS, and comes in a multiplicity of designs and types which impart crucially important dating evidence: the strap end. As the name suggests, strap ends are small items of often intricately worked metalwork designed to strengthen and decorate the end of cloth or leather strapping. Strap ends appear in an extensive array of contexts and forms, and appear to have been a common decorative element for a variety of other elements of material culture, yet have nonetheless received little attention. Williams' extensive work mapped the distribution of strap ends found by local archaeology groups in England, and approached them largely with the interpretation of their being elements of decorative horse tack, attached to stirrup straps, reins and the like in order to decorate and lengthen their service (Williams, 1997, 4-5). Thomas' later work provided a far more substantial classification system for the wide variety of known strap end types, which has formed the basis for categorising artefacts of this type. While he agrees that larger and heavier forms of strap end were indeed used in horse wear, these are far less common than the bulk of types which indicate they were commonly an element of Anglo-Saxon decorative clothing, identifying a series of 'lighter' types which more likely served as personal decoration, for example on belts, boots, clothes fastenings or wargear (Thomas, 2000, 250-270).

The use of strap ends, whether as a form of decorative personal wear or as an element of horse tack, appears to have had its origins in the Late Roman period and first entered more common use as high status items found in grave goods in the Early and Middle Saxon periods, likely as a result of Carolingian Frankish influences upon English fashions (Thomas, 2000, 220). Owen-Crocker suggests that the use of non-horse tack strap ends may have begun commensurately with a decline in buckles in the archaeological record during the seventh century, as leather belts also appear to have fallen out of fashion in favour of woven girdles more indicative of high status craftsmanship (Owen-Crocker, 1986, 100). MacGregor in turn suggested that strap ends provided a more high-status decorative element to otherwise more banal leatherwork goods, arguing in particular that a pair of late Anglo-Saxon strap ends found at Ipsden Heath, Oxford, likely formed part of the fastening of a satchel or shoulder bag (MacGregor, 1994, 126). As a form of popular material culture, however, strap end usage in England as a whole appears to have reached a zenith in the ninth century, with a rapid proliferation both in styles and widespread adoption in both personal wear and horse tack stylings, with popular usage continuing through the tenth and into the eleventh century.



*Figure 76: CPAT-9CCC47, a Thomas Class E (tenth century) strap end from Colemere, Shropshire. Image: PAS*

During this period of proliferation, the use of strap ends remains, critically, an almost certainly uniquely English element of material culture: of find sites catalogued by both Williams and Thomas, almost all lie within England, and design elements remain characteristically Anglo-Saxon until well into the tenth century (see distribution maps below). Finds in Wales are confined to the south east and the coast of Glamorgan, where Anglo-Cambrian political and economic ties were most developed, particularly

from the mid-ninth century onwards, whilst in Scotland, finds are either located in high-status graves toponymically and numismatically linked to areas of eighth and ninth century Anglian Northumbrian settlement, or as items of high value loot in ninth-century or later Viking hoards and burials in the Scottish Isles and coastal areas. (Davies, 1982, 114; Metcalf, 1987, 361-82; Proudfoot and Aliaga-Kelly, 1996, 6-7).

The tenth century in particular saw the development of new styles, with 'tongue-shaped' (Thomas Class E) becoming popular as well as more intricately decorated types (Thomas Class B), although simpler ninth-century designs still remained popular, particularly in the North (Thomas, 2000, 221; Thomas 2003, 4). It was also during the latter half of the tenth century that Scandinavian styles began to appear in England, with 'Class E' types especially starting to appear with elements of *Borre* design in their decoration (Thomas, 2003, 5-10).

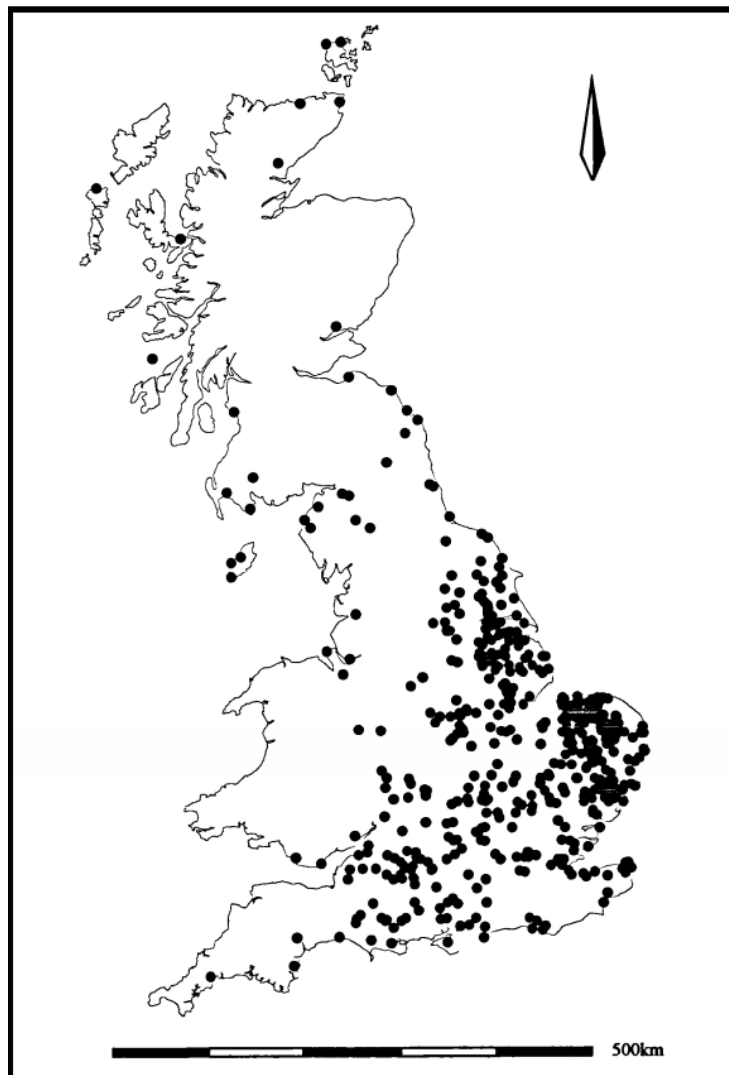


Figure 77: Distribution map of known strap ends from Thomas (2000)



There is some evidence that strap ends were imported from the continent during the ninth and tenth centuries, and indeed the eventual designs of the Thomas Class E types may have been based to some degree on a limited number of the type 'E6' strap ends found in small numbers mostly in East Anglia, however the circulation of this type appears to have been low, and it does not seem to have been widely adopted as an element of Anglo-Saxon wear (Thomas, 2000, 253). Strap ends had gained some adoption in Northumbria before the onset of Viking attacks, and production appears to have continued there on a low level, particularly at York; it is likely that this represents an element of English material culture survival, as there is no evidence of any Danish attempts to mass produce and standardise strap ends as happened with other elements of decorative metalwork and dress accessories. This had occurred with items such as pins and brooches, with evidence suggesting that these were produced and then exported from specialised industrial sites such as Hedeby and Lund, and potentially Norwich within the Danelaw (Margeson, 1997, 18; Richardson, 1993, 31-3). Contemporary types of strap end are conspicuously absent from excavations at significant areas of mainly Danish settlement, such as Stamford or Lincoln, indicating that whilst the production of strap ends with Britain was not entirely limited to areas under English political control, it was nonetheless limited to the English culturally.

Attempting to identify production sites for strap ends has proven difficult, largely due to the sheer variety of types and styles in existence and a plethora of decorative styles evident even within the same broad classes identified by Thomas (2004, 4). Although there is a clear number of sites with multiple finds situated at known Anglo-Saxon urban sites in the South and East such as Winchester, this could merely demonstrate the clear correlation that small elements of personal wear are far more likely to be lost and deposited in sites which see frequent use by relatively large numbers of people.

In 1999, Richards investigated the number of finds including strap ends linked to so-called 'Productive Sites', finding that this term likely belies a variety of sites with differing functions, from monastic centres, long-standing villages, high status manors and potential temporary market sites, all of which result in increased patterns of deposition of material culture regardless of production, and may in fact also represent a cycle by which initial finds draw the attention of metal detectors and archaeologists to an area, resulting in more finds and the declaration of a 'productive site' at the expense of other nearby sites (Richards, 1999, 71-80). Unlike coinage or ceramics, there appears to have been no effort to standardise manufacture, and this is indicative of multiple small workshop sites operating independently in response to a market demand rather than a centrally imposed and regulated industry as seen with Stafford Ware. This makes the distribution of strap ends particularly interesting to investigate in West

Mercia, as it serves of a visually distinct marker of the organic spread of a definitively English form of material culture independent of any state efforts.

The distribution of strap ends within Western Mercia has largely gone unstudied, due to the sparse nature of finds that had previously been recorded there. As the spatial information from Thomas' 2000 survey of strap ends (*Fig. 6*) shows, the vast majority of finds were located in the south west, south and on the east coast, with particular concentrations in East Anglia, indicative of areas where the fashion may have originally gained prevalence, as well as around Winchester, where there were likely to be high status settlements. Indeed, Thomas remarks that the vast majority of distribution occurs south east of a line drawn 'roughly from the Bristol Channel across to Whitby', although does concede that this distribution is at least partially due to the preferences of metal detectors and the greater wider archaeological interest in these areas (Thomas, 2000, 223). Williams' 1997 map of the distribution of strap ends focuses on the sturdier and heavier strap ends (Thomas Classes E and H) which he identified as being horse harness fittings or stirrup strap end covers rather than elements of personal wear, and is shown below (*Fig. 8*; Williams, 1997, 2-10; Webster and Backhouse, 1991, 233). By nature of being both an earlier map and having more specific selection criteria, Williams' distribution does show significant differences from Thomas' later map, particularly in the distribution of finds in the East Midlands and North East. Williams' work was carried out in conjunction with many regional metal detecting clubs and thus encompasses some finds which were missed from Thomas' later, archival, approach, although as this includes a far wider spectrum of classes and types, a far more extensive overall distribution is seen. Despite their differences, however, the similarities between these distributions are clear: the majority distribution in the South West, south coast and East Anglia, concentrations around major settlements such as London and Winchester, and a dearth of finds in the West Midlands. Williams' map of distributions is shown below (*Fig. 78*). The paucity of finds in the West Midlands would suggest either that the Mercians steadfastly refused to adopt a fashion which had proved popular in every other corner of England, and was during the tenth century undergoing a resurgence in both design and production, or that there was a lack of any high status sites or major population centres in the West Midlands where strap ends could be produced or deposited. Both of these options can be readily disabused: although West Mercia remained culturally aceramic until the late tenth century in contrast with the rest of England, the distribution of government issued ceramic wares illustrates that they were still in use within the state, and Mercia can be seen to have been fully integrated on a national level with other items of decorative metalwork, such as coinage (see Chapter 4).

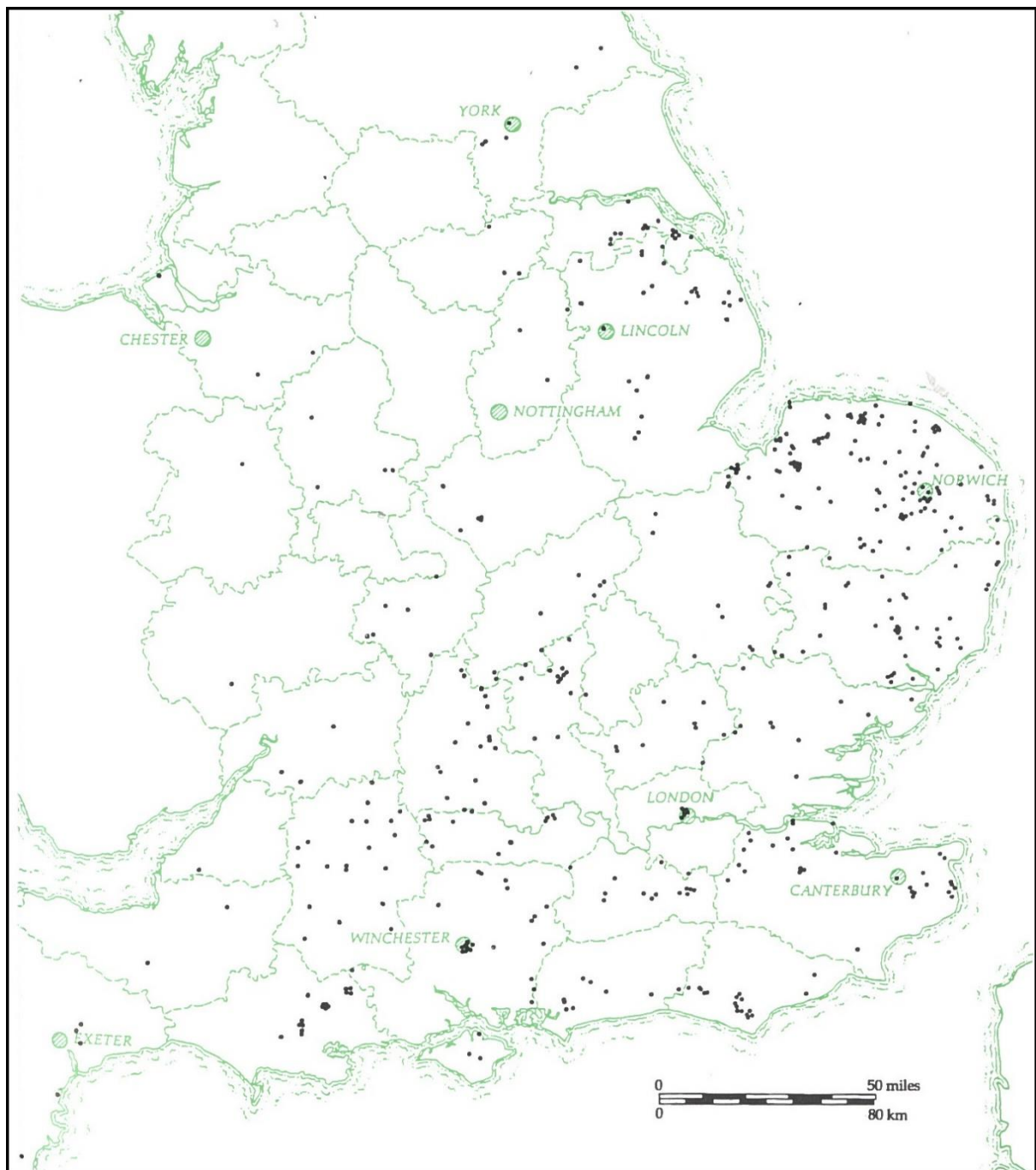


Figure 78: Distribution of strap ends and stirrup mounts from Williams (1997)

Although coinage was mandated at a governmental level and cannot be said to necessarily represent popular fashions, it was nonetheless produced at a local level within the *burhs*, and indicates that local facilities at which small, decorative metalwork could be produced were relatively widespread. Likewise, the distribution of coinage seen in Chapter 4 indicates that the West Midlands were integrated into a wider English economic network through which the Mercians would certainly have to come into contact with high status decorative wear and fashion items such as strap ends. This is to say nothing of the eighth- and early ninth-century Mercian hegemony over Kent, Sussex and East Anglia under Offa and Coenwulf, under which decorative trends

originating in these areas must have surely been known to Mercia at large. Neither can it be said that West Mercia lacked the high status 'productive sites' with which strap end production and distribution have been associated on the east coast (Richards, 1999, 71-72). Apart from the *burhs*, Worcester, Gloucester and Lichfield were important bishoprics, Tamworth was a longstanding Mercian capital, Shrewsbury was a prosperous town, and Chester had become prominent as a major centre for commerce and minting. The lack of finds in West Mercia, therefore, was unlikely to have been related to the fashions of the Mercians themselves, or the nature of their settlements and land use, and more due to a pure lack of discovery. Research with PAS has shown that this is indeed the case. The rise in popularity of metal detecting and the facilitation of the recording, classifying and registering of finds afforded by PAS has allowed for a far more extensive map of finds within Britain to be drawn, and this is shown below (Fig. 79).

This proliferation of finds in the decades since Williams' and Thomas' surveys has allowed for the discovery and cataloguing of a significant number of finds within the West Midlands, which allows for a new distribution pattern of strap ends in the region to be described. By using the PAS database of finds for Cheshire, Shropshire and Staffordshire, a series of recently discovered artefacts can be discovered, most of which have not yet been published, and some of which are still awaiting formal classification. PAS databases are organised at the council level, and research investigated the databases for Chester and Cheshire West, Cheshire East, Halton and Warrington for Cheshire county, Staffordshire, Birmingham and Stoke-on-Trent for Staffordshire county and Shropshire and Telford and Wrekin for Shropshire county, yielding 91 results.

Whilst these numbers are still relatively low, compared for example to the thousands of coins found in the West Midlands, they are significantly greater than the previous six or nine specimens previously recorded by Thomas and Williams respectively. Altogether, thirty-two strap ends were found in Cheshire, twenty-eight within Shropshire, and thirty-one in Staffordshire. Wherever possible, any dating evidence for each strap end was recorded alongside the spatial data. As yet, evidence of strap ends among the assemblages excavated within the context of Mercian *burhs* or urban centres is lacking, although some were found within a hoard discovered at Beeston Tor, Staffordshire, in 1964 (Wilson, 1964, 120).

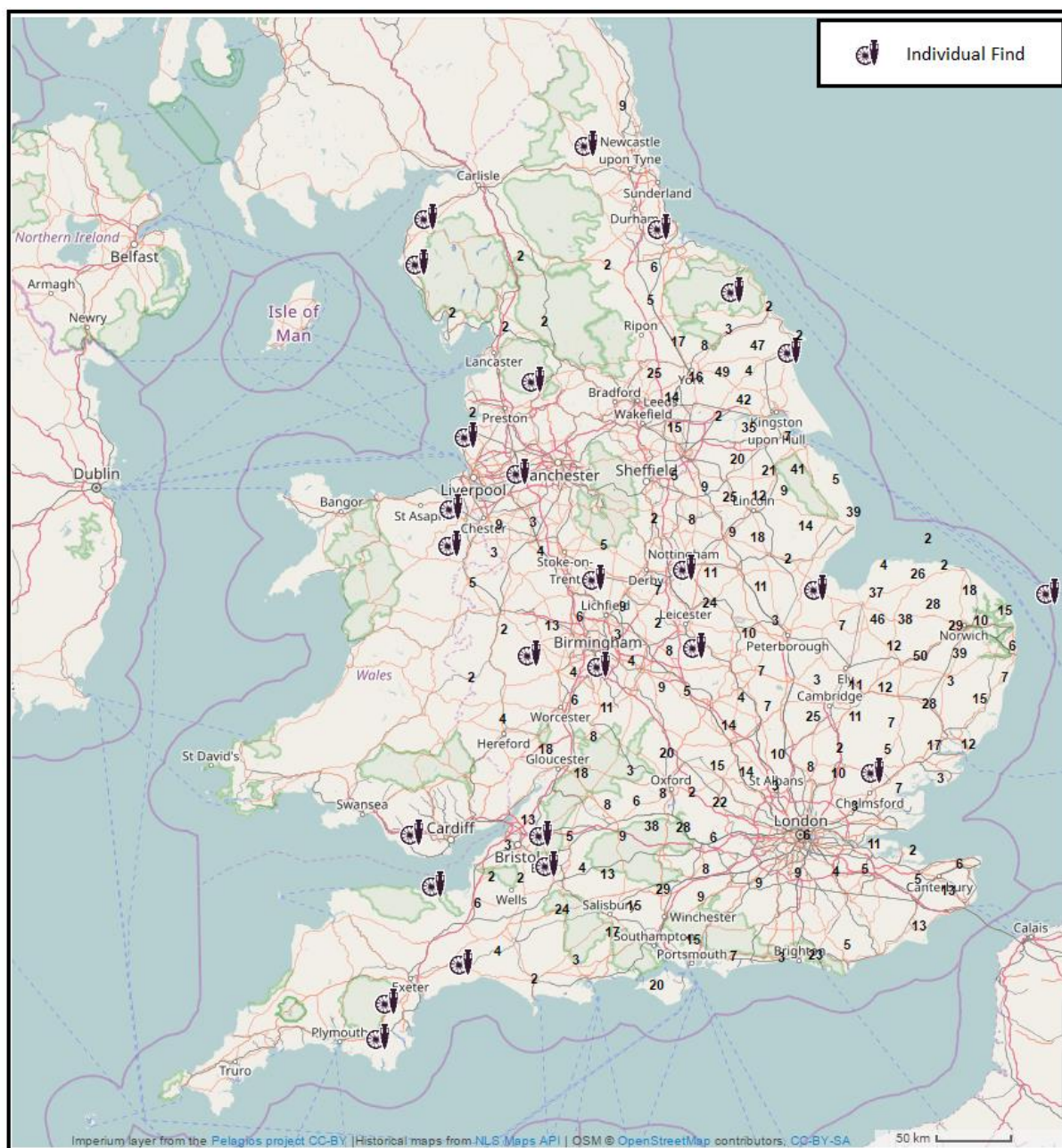
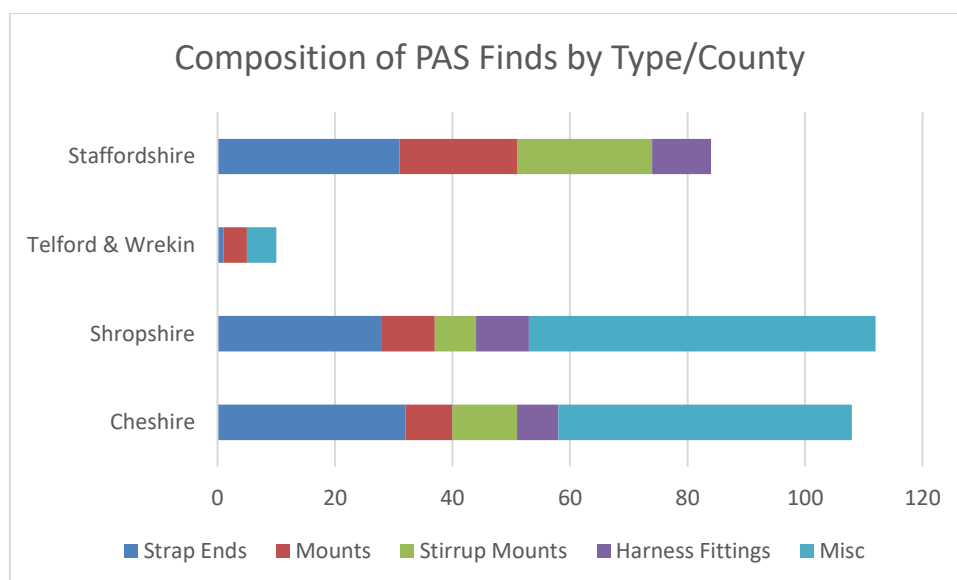


Figure 79: Map from PAS of early medieval strap end finds within the British Isles. Numbers indicate multiple artefacts found in a parish, amphorae symbols illustrate individual finds. Source: PAS (2017).

In order to provide context for any strap ends found, searches were made for any Early Medieval or Anglo-Saxon wares discovered. Within this context, strap ends formed a highly significant proportion of the portable material culture elements discovered through PAS. The composition of these finds is shown below (Fig. 80)





*Figure 80: The composition of PAS finds in West Mercia by type and county. Miscellaneous finds for Staffordshire are not shown, due to the Staffordshire Hoard. Author's own, based on data from PAS database.*

In Cheshire, strap ends constituted almost a third of finds, with 32 of 108 artefacts across all four authorities being strap ends of some form. A further eight were decorative stirrup mounts, of the type associated with Thomas Class E and H strap ends. In Shropshire, strap ends composed a quarter of all registered PAS early medieval finds, with 28 of 112 listed records, and one of ten finds in Telford and Wrekin. In these contexts, a further nine finds were decorative harness fittings and stirrups respectively as well as seven decorative mounts within Shropshire, and four of ten finds within Telford and Wrekin were stirrup mounts.

Within Staffordshire, strap ends formed 31 of 1,442 recorded finds, although this proportion has been severely skewed by the 2009 discovery of the Staffordshire Hoard near Lichfield and Burntwood, which yielded 1,662 objects, all of which are catalogued with PAS albeit with some records cataloguing multiple smaller fragments of metalwork (Leahy and Bland, 2012, 8). Unfortunately, the PAS database dating parameters are just 'early medieval' unless an exact 'start date' can be provided for an artefact, which is not the case for many classes of strap end, and as such the Staffordshire Hoard material cannot be removed from the analysis of the dataset. Because of this, *Fig. 80* omits the proportion of Staffordshire PAS finds not comprised of strap ends, harness fittings, stirrups and mounts as including this vast array of finds would render the other data illegible. The sheer scale of the Staffordshire Hoard, as well as the fragmentary nature of many of the artefacts from it, has meant that priority in sorting, processing and cataloguing the finds has naturally gone to those larger and more immediately identifiable items, meaning that much of the hoard remains yet unidentified. Indeed, in 2012, 28.4% of the contents of the hoard remained unidentified, however buckles and

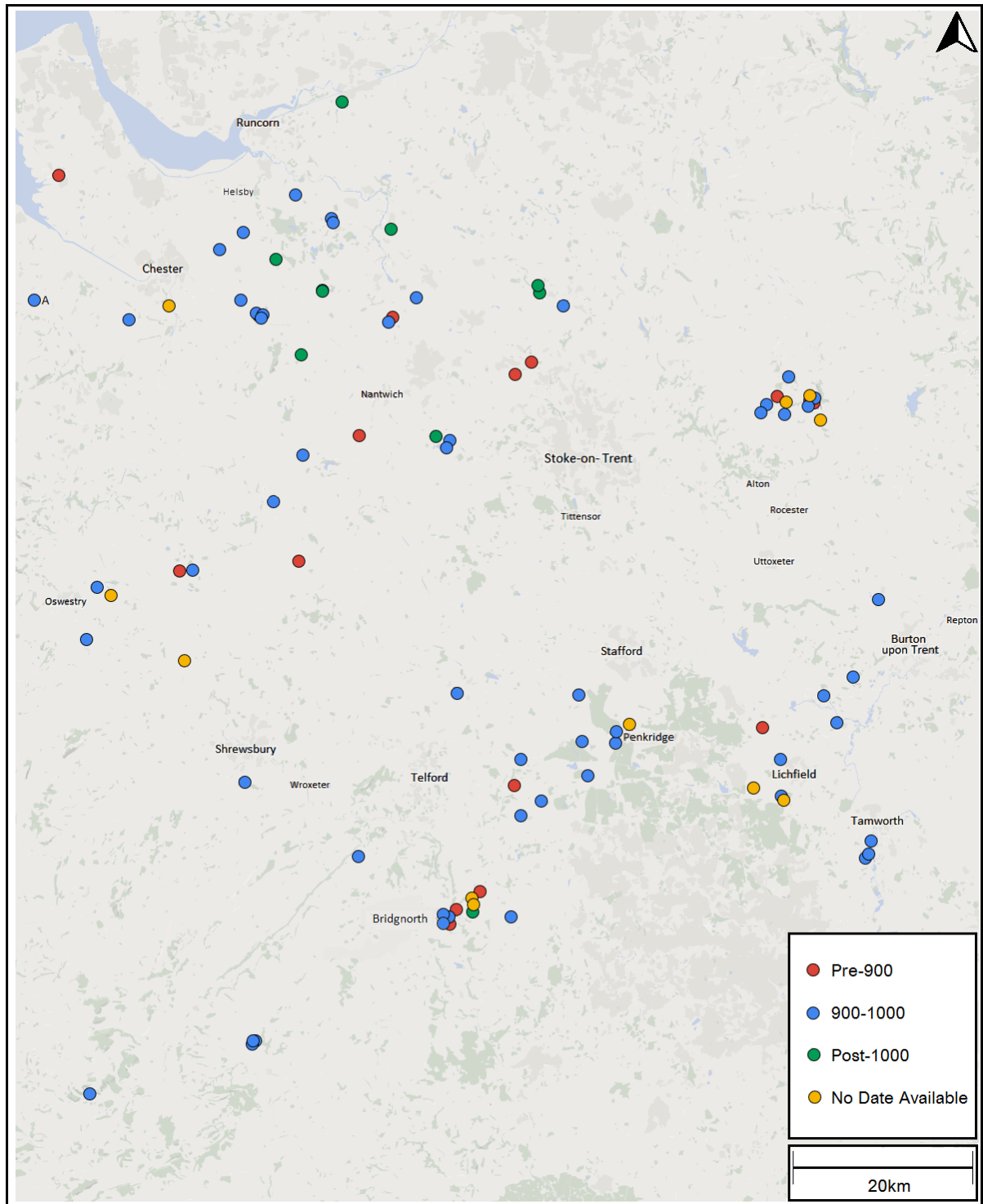
other decorative personal wear items have been identified, and it is thought that many as-yet-unidentified elements of decorated metalwork fragments may be from strap fittings or ends (ibid., 42 and 44).

If the Staffordshire Hoard is disregarded for being anomalous in illustrating a pattern of deposition for decorative metalwork, then the distribution of PAS finds in Staffordshire, Cheshire and Shropshire shows clearly that decorative wear, whether personal or for horses, was widely used in Western Mercia, as either markers of status or just as fashionable daily wear. Within Cheshire, nineteen of the finds recorded were pins, seven were brooches, and four were decorated buckles. In the context in Shropshire, eight brooches are recorded, along with five hooked tags, used as ornamented dress fastenings, and ten dress pins. Although the prevalence of metalwork finds is intrinsic to the PAS and the types of finds it records, and cannot be expected to give a full picture of the use and deposition of material culture in these areas, the composition of the county finds databases shows that strap end usage within Mercia did not exist in isolation and was not an anomalous material culture trend imposed from above in the style of Stafford Ware pottery. Rather, it developed as part of a wider use of personal jewellery and decorative wear, implying that strap ends should be familiar items with some history of use.

*Fig. 81* shows the distribution of all strap ends recorded with PAS in the survey area. Whilst this cannot be said to show a full picture of the pattern of decorative material culture usage in the West Midlands, it is the most complete currently possible for decorative metalwork and nonetheless illustrates some interesting features in the adoption and usage patterns of strap ends throughout the Anglo-Saxon period. One significant caveat with this distribution lies in the dating categories to which the strap ends are assigned; the dating periods shown on *Fig. 81* are those in which the strap ends are categorised in PAS, on the basis of their Thomas class or other significant decorative or style marks. Many of those categorised as pre-900 strap ends are so dated as they fall under Thomas Class A, smaller and lighter items with engraved, often anthropomorphic or geometric designs which reached a peak of popularity in the ninth century. Thomas, however, suggests that this class was only replaced in popular fashion in the south and on the east coast by the end of the century, remaining popular and in production well into the tenth century in the north and north east (Thomas, 2000, 219-222; 2003, 3-4). To claim that a popular ninth-century style would also vanish entirely from circulation in the year 901 would also be facetious, and it is likely that Class A types would have remained in circulation into the early tenth century, or even longer if they did indeed remain more popular in areas outside of Wessex and East Anglia. It is possible, therefore, that many of the pre-900 finds indicated on *Fig. 9*,



where they represent Thomas Class A types, may in fact be items of tenth-century manufacture and deposition which have been incorrectly assigned on the basis of wider trends in strap end fashion. For the purposes of this distribution, however, they have been left in their assigned period as denoted by PAS.



*Figure 81:* The distribution of strap ends in Western Mercia, as recorded via PAS. Finds have been classified by Thomas Class and subtype where possible to determine age, and divided into four probably age categories as shown: Those most likely of pre-900 design and manufacture, those most likely originating from the tenth century, those produced in the eleventh century or later, and those for which no discerning identifiers were readily available. Base map, Google Maps (2016) with annotations author's own, based on data from PAS.

Attention should also be drawn to the number of finds for which no dating information was readily available; in total, eleven of the strap ends listed on PAS, or approximately ten percent of total finds, could not be comprehensively dated. In many cases, this was because the finds were recovered degraded to such an extent that no clear detailing or design could be discerned from which a Thomas class or any approximate dating could be found. In some cases, however, the finds were of a type for which no specific dating can be assigned. One such example is WMID-C4E5D8 (see *Fig. 82*, below), a Thomas Class B strap end recovered approximately 3km north east of Bridgnorth (*Fig. 85*, 'A', below). The Thomas Class B types were first introduced in the late eighth or early ninth centuries, as indicated by stratified archaeological contexts at Hamwic and London, however further stratified finds from excavations at Winchester and Westminster have shown that they remained popular until the eleventh century (Thomas, 2003, 4; Thomas 2000, 201-106). Within these classes, certain subtypes may be conclusively dated, such as types 4 and B5 which can be originated to the late ninth and early tenth centuries, however others such as types 1 and 3, into which WMID-C4E5D8 falls, have no such definitive contexts.



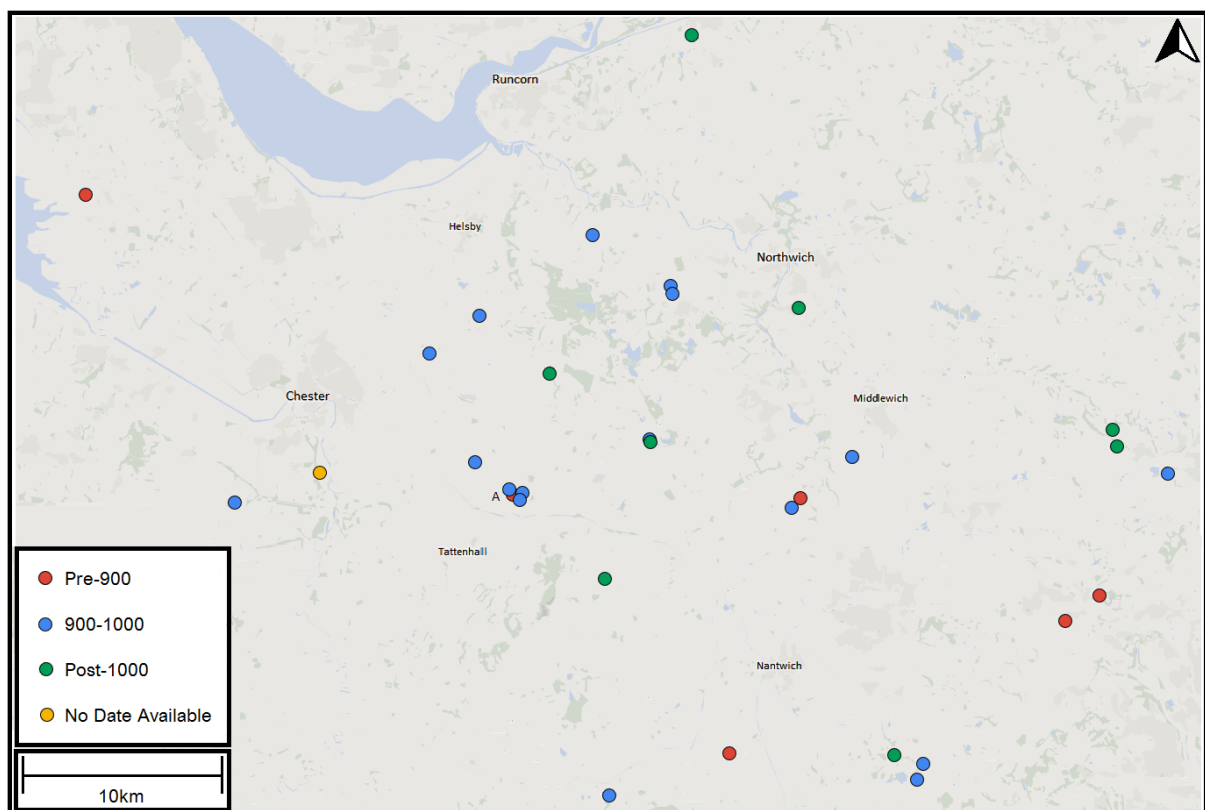
*Figure 82: WMID-C4E5D8, a Thomas Class B, type 1 strap end found near Bridgnorth (Fig. 85, cluster 'A'). This type was popular from the eighth until the eleventh century, and no datable context for this find was recorded. Image: PAS*

The distribution of finds shown in *Fig. 81* illustrates clearly a number of notable trends in the material culture of Western Mercia. Immediately noticeable and particularly important is the proliferation of strap ends from a tenth century context or later, as shown by blue and green dots respectively. Indeed, roughly two thirds of all strap end finds within the three counties, 55 of 91 recorded, can be dated to have been produced within the tenth century. Of the remaining finds, a further nine are of eleventh century design, largely denotable from the appearance of Scandinavian *Borre* design elements

in the decoration. That sixteen strap ends are recorded as likely being of ninth century or earlier manufacture may be indicative of long-standing use in the area, yet that the vast majority of finds can be dated to the tenth century or later is undoubtedly highly significant. These trends may become clearer when analysed on a county basis.

## Cheshire

A more detailed distribution map of Cheshire may be seen below (Fig. 83). Thirty-two individual strap end finds within all four local authorities of Cheshire are recorded with PAS, of which six are presumed to be of pre-900 design, seventeen are of probable tenth century design, eight are designated post-1000, and one of which cannot be conclusively dated. As is to be expected from the intrinsic nature of PAS, no finds are logged from within the city of Chester itself, however the surrounding distribution of finds illustrates very clearly the economic hinterland of the Anglo-Saxon settlement. Whilst the fact that the great majority of finds from Cheshire can be dated to the tenth century is significant, it is not of itself surprising. Before Æthelflæd and Æthelred 'restored' Chester in 907, the *Anglo-Saxon Chronicle* records that in 893 the city was deserted, with only some degree of nearby settlement implied (ASC MS.A and D, s.a. 893 and 907, Whitelock, 1961, 56 and 61).



*Figure 83: The distribution of strap ends within Cheshire, dated where possible from Thomas Class and design subtype, as recorded by PAS. Base map, Google Maps (2016) with annotations author's own, based on data from PAS.*

Chester's abandoned state pre-907, and the rapidity with which it became a major minting and trade hub after its restoration, suggest that great effort was put into restoring the city's buildings and fortifications to an extent that it was both inhabitable and defensible, and indeed Æthelflæd's pictorial Chester coinage issues depicting buildings likely celebrate what would have been a major success (see Chapter 4). Chester's burgeoning success as a settlement, reflected in part in the widespread distribution of its coinage, can also be seen in the sudden proliferation of decorative personal wear that the distribution of finds in *Fig. 83* represents.

The rapid growth of Chester and the security provided by the *burhs* there as well as at Eddisbury and Runcorn may have acted as a catalyst for more widespread settlement and the growth of prosperity in pre-existing settlements through the presence of more markets and possibly greater travel along restored or patrolled Roman roads. It is also possible that Æthelflæd and Æthelred granted land to their thegns following the restoration of Chester in order to establish a hinterland to support the city agriculturally, economically and with manpower; although there is no surviving archival evidence for this, there is an immediate comparison in a 914 charter of Æthelflæd granting land at *Stantun* (either Stanton, Derbyshire neighbouring Burton upon Trent and Tatenhill, or Stanton in the Peak District near Alton) to an Ealhelm following the construction of the *burhs* at Stafford and Tamworth the year previously (S224).

Of the seventeen strap ends dated to the tenth century, twelve could be conclusively identified within a Thomas class and type. Of these twelve, six were Thomas Class E strap ends, illustrating that the style which had become popular in Wessex at the start of the tenth century was likewise entering use within Mercia. Of the remaining six, three were Class B types, and three were Class A, from types stratigraphically dated from other contexts to the late ninth and early tenth centuries. The use of such late-ninth and early-tenth century styles is consistent with a sudden growth in the manufacture and usage of decorative wear as the hinterland of a major *burh* was settled and expanded.

Of those six finds which have been dated to pre-900, four can be definitively classified as Thomas Class A types of which one, LVPL-3EE1C3, a Thomas Class A type 2, is typologically similar to those in tenth century contexts. Another, LVPL40, is dated to 850-900 on its decorative carvings, however was found nearby to LVPL849, another Thomas Class A type 2 likely dating to the very early tenth century. This overlap in class and type in deposition patterns around Chester may mean that some, if not all, of the strap ends attributed to the ninth century in terms of design may in fact have been in use in the opening decades of the tenth, and thus reflect the reintroduction of strap

end usage in the area as it became repopulated, rather than a continuing use through long-term low-level settlement.



*Figure 84: LVPL-D1295B (top) and LVPL-4B46A3 (bottom) - Thomas Class E strap ends recovered between Waverton and Tattenhall, Cheshire (Fig. 85, cluster 'A'). Image: PAS*

The pattern of distribution in Cheshire is almost entirely to the east of the city itself, stretching across the Cheshire plain towards Crewe and Nantwich, and matching the established hinterlands of the city suggests that Chester itself may well have served as a productive site for the majority of these finds. The prevalence of so many post-1000 strap ends – twenty-five percent of Cheshire finds and eight of nine overall post-1000 strap ends were found in Cheshire – imply that production of decorative metalwork continued well into the eleventh century. This would make sense given Chester's role as a major mint site and trade hub, and the continuation of production emphasises Chester's continuing prosperity and importance during the period.

A cluster of finds between Waverton, Tattenhall and Tarporley, including those shown in *Fig. 84* above, is notable (*Fig. 83*, cluster 'A'). Waverton and Tattenhall are known Anglo-Saxon settlements, and the finds themselves are situated along the Roman road from Chester to Stoke-on-Trent via Waverton, which passes below Beeston Castle, likely functioning as a refuge and signalling point in a network of civil defence (see Chapter 3). They are also adjacent to the site of Lower Huxley Hall, now the site of a

fifteenth century moated hall but previously held by the Canons of St. Werburgh's Abbey in Chester. St. Werburgh was a Mercian saint whose remains were translated from Hanbury to Chester by Æthelflæd, who established the abbey on the current site of Chester Cathedral, and it is possible that Huxley was granted to the abbey at that time as a source of income or even as a satellite house, which would provide a high status monastic site at which items such as LVPL-D1295B and LVPL-4B46A3 could have been deposited.

## Shropshire

PAS records 28 individual strap end finds within Shropshire, of which six are of probable pre-900 manufacture, seventeen of probable tenth century design, one of post-1000 style, and four provide no ready dating information. The distribution of these finds is shown below in *Figure 85*. Of the 28 finds, twenty-two can be assigned to Thomas classes, of which Thomas Class A is the most common by a significant margin. All six of the strap ends designated pre-900 in date are of Thomas Class A, although in some cases the subtype is unclear. Of the tenth century designs, nine are also of Thomas Class A, with the majority of these being of the type 2 variation, although some are still of type 1.

Class E types appear to be less common than in Cheshire, with only four of these recovered, however this may be simply due to lack of discovery rather than a lack of production. One of the Class E types bears distinctive Carolingian and *Borre* design elements which may indicate that it comes from the end of the tenth century. Anglo-Saxon settlement in Shropshire was likely more continuous than that in the Cheshire Plain, and so a gradual adoption of Class A types and later Class E rather than a sudden influx of new designs following new settlement may have occurred.

The pattern of distribution within Shropshire can be seen on two main axes: in the north west of the county near the borders with Cheshire and Wales, and in the east near the border with Staffordshire. By far the densest distribution can be seen to the north west of Bridgnorth, with ten individual find sites grouped between Bridgnorth and Worfield (*Fig. 85*, Cluster 'A'). Of these ten, four are tenth century with one Thomas Class E and three Thomas Class A type 2 finds.

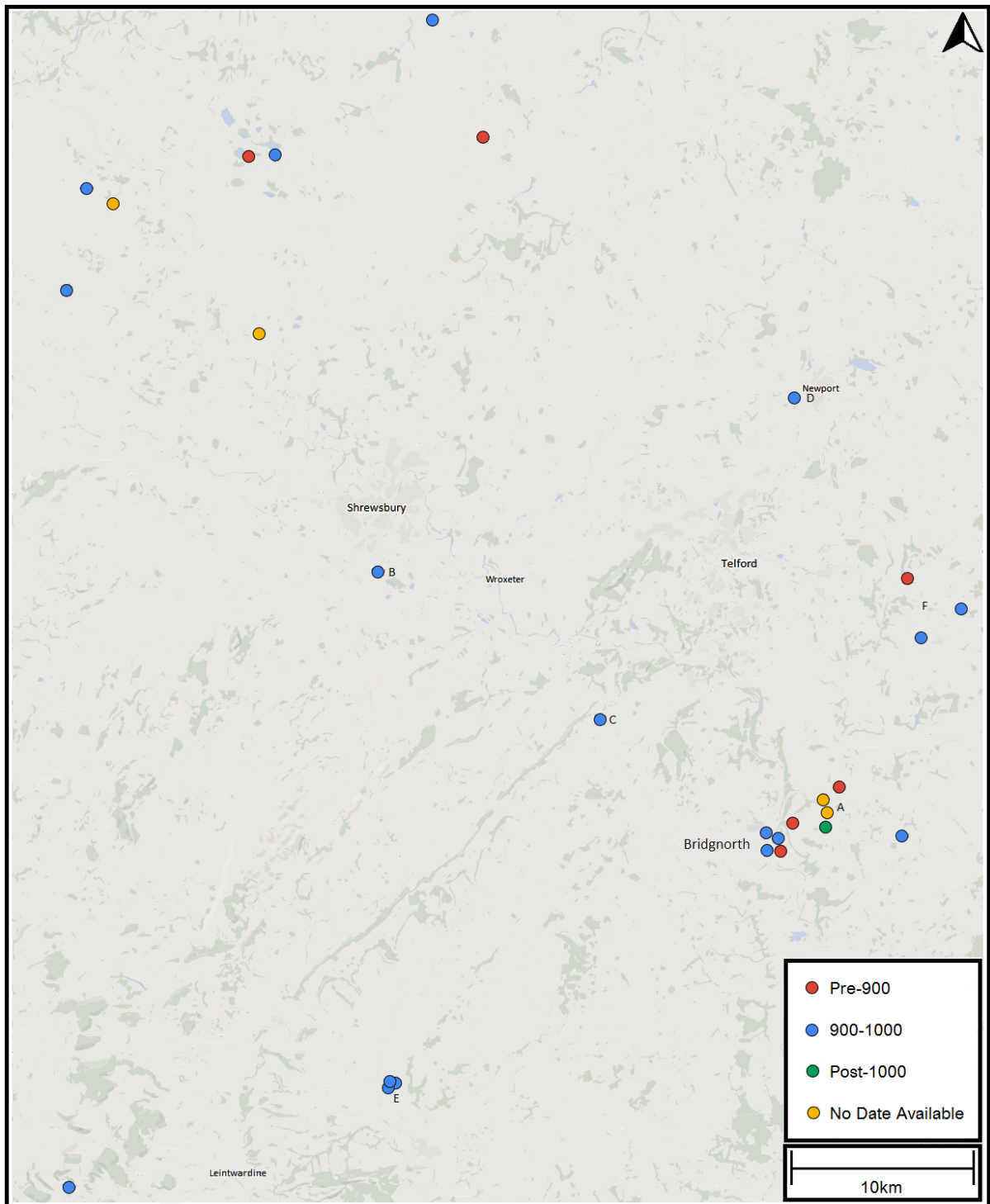


Figure 85: Strap end distribution within Shropshire, dated where possible from Thomas Class and design subtype, as recorded by PAS. Base map, Google Maps (2016) with annotations author's own, based on data from PAS.

The three designated pre-900 strap ends are all of Thomas Class A type 1, while two are undated and one is post-1000. These finds are all within 10km of Bridgnorth, and it is tempting to assume that these Class A type 1 finds were still in popular use at the time of the *burh*'s construction in 912 and deposited around this time; it must be noted, though, that the *burh* at Bridgnorth was sited at what was already a significant river



crossing with likely a Roman bridge, and linked by Roman roads both to Wroxeter and Watling Street via Tettenhall (see Chapter 2). It is therefore possible that this was an area which already saw significant traffic prior to the construction of the *burh*, and likely settlement as well, which merely increased following the establishment of Bridgnorth's defences. Bridgnorth appears to have been a predominantly military establishment, and so may not have functioned as a major productive site, however no excavations at Bridgnorth have found any evidence to prove or disprove the existence of metalworking at the site. 5km north west of Bridgnorth, however, is Worfield and an Iron-Age hillfort later occupied by the Romans, an area of which also bears the toponym 'Totter's Hill' implying the site may have been part of the Anglo-Saxon defensive network and served as a refuge (Shropshire HER 00433).

Worfield itself is likely to have been a high-status settlement; at the time of *Domesday* it was a major village of 109 households, having been held by an Earl Algar in 1066 and with a church potentially constructed by Earl Leofric in the 1040s (NMR: SO 79 NE 5). Having both a high-status settlement and two defensive sites nearby would explain a high concentration for the use, and therefore deposition, of decorative material culture, and Worfield's prosperity in the eleventh century accounts for the nearby deposition of a post-1000 strap end. It also cannot be discounted that, as in the Cheshire plain, being situated along the Roman road between two *burhs* and adjacent to a site of refuge would likely have imparted a sense of security which would have bolstered the occupation, development and prosperity of settlements in this axis.

The deposition of finds along the border with Cheshire and Wales may be seen as a continuation of a wider pattern of the use and loss of strap ends commensurate with either the resettlement or bolstering in population of this area following the restoration and reoccupation of Chester in 907. This can best be seen in *Fig. 81*, as a pattern of distribution largely to the east and south of Chester. The large gap between Chester and north Shropshire in this distribution is largely due to Wrexham and substantial industrial development, however a single strap end of Thomas Class A has been found in Flintshire to the north-west of Wrexham near Pantymwyn which suggests that the spread of material culture from Chester did also spread into this area and northern Shropshire (LVPL-5EAC05; *Fig. 81*, 'A'). In this context, the two Thomas Class A types found here may be representative of a pattern of deposition in the first decade of the tenth century during the re-establishment of Chester rather than of earlier ninth-century activity.

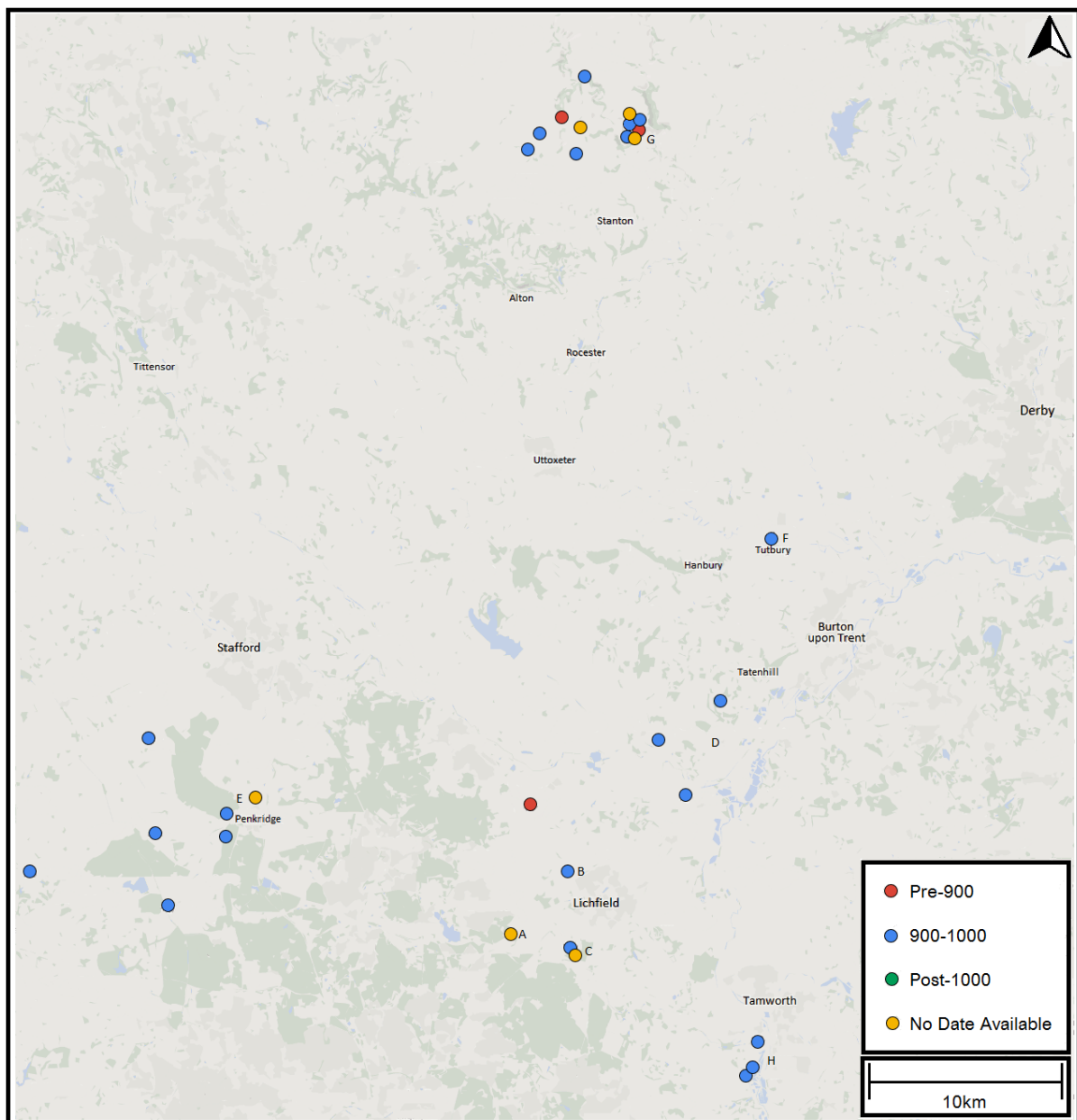
Much of the interspersed distribution of finds in Shropshire between these two axes correlates to a series of Anglo-Saxon settlements and high status sites. Tenth-century

types are found near Shrewsbury (HESH-892F38; *Fig.85*, 'B'), Much Wenlock, site of an Anglo-Saxon priory since c.680 (HESH-167369; *Fig. 85*, 'C'), and Church Aston near Newport, Telford, a find site of Stafford Ware (HESH-167369; *Fig. 85*, 'D'). A cluster of tenth century finds is located near Stanton Lacy, in south west Shropshire (*Fig. 85*, 'E'). Although abandoned in the seventeenth century, at the time of *Domesday* Stanton Lacy was a prosperous village with 132 listed households and substantial farming lands, and a large stone church dating from the early eleventh century (NMR SO 47 NE 13). Approximately 10km north of Leintwardine and west of the hillfort at Titterstone Clee (see Chapter 3), it is again likely that a level of security provided by proximity to elements of the defensive network contributed to the prosperity and development of this site, even on this relatively quiet frontier.

In north east Shropshire, two Thomas Class E strap ends are distributed north of Albrighton, along with a Thomas Class A in Tong (*Fig. 85*, cluster 'F'). This area was part of Alnodestreu Hundred at the time of *Domesday*, with twenty-four households listed in Donington, nineteen in Albrighton and thirteen in Tong, and substantial farmlands, indicating likely long term settlement at Donington at least. On the border with Staffordshire, this area also lies just to the south of Watling Street and so is linked to the wider transport and travel network, as well as being close to the *tōt* sites at Tettenhall and Penkridge.

## Staffordshire

There are 31 individual strap end finds recorded with PAS within Staffordshire, comprising three of probable pre-900 design, 22 of probably tenth century design, and six for which no definitive dating could be reached. The lack of definite post-1000 finds is curious, but may be due to simple lack of discovery rather than a halt in material production during the eleventh century. Of the 31 finds recovered, 26 could be assigned definitively to Thomas classes, and the majority of these could also be assigned to specific subtypes. As in Shropshire, the Thomas Class A is particularly popular, with fourteen of the finds fitting into this class. All three pre-900 strap ends are of Thomas Class A, type 1, and eleven of the 22 tenth century types are also Class A, although most of these are type 2. Thomas Class E types are also prevalent, with eight in total of various subtypes being found. The distribution of these finds is shown below.



*Figure 86: Strap end distribution within Staffordshire, dated where possible from Thomas Class and design subtype, as recorded by PAS. Base map, Google Maps (2016) with annotations author's own, based on data from PAS.*

As in Shropshire, strap end finds within Staffordshire are distributed in two main groups. The first group distribution is similar to that of Anglo-Saxon 'defensive' toponyms discussed in Chapter 3 and in reference to Stafford Ware find sites, following two intersecting axes with some significant clusters: finds are distributed along the path of the two main Roman roads, from East to West along Watling Street and following the River Trent along the course of Ryknild Street. Finds along this route at sites such as Hammerwich (*Fig. 86, 'A'*), Lichfield (*Fig. 86, 'B'*), Wall (*Fig. 86, 'C'*), and around Barton-under-Needwood (*Fig. 86, 'D'*) suggest that this area relatively densely settled, and indeed a series of Anglo-Saxon toponyms supports this. Repton and Tamworth were major Mercian sites long before the tenth century, and the Class A type 2 finds in the region between the two sites may in fact be indicative of earlier patterns of strap

end wear, however type 2 finds are common within tenth-century contexts and may also illustrate an emerging fashion during tenth-century fortification. This latter adoption is supported somewhat by the cluster of tenth-century types to the south of Tamworth (Fig. 86, 'H'), where earlier types might reasonably be expected had the fashion been previously popular.

A cluster of finds near Penkridge (Fig. 86, cluster 'E') is not only due to the town's location above Watling Street, but also likely reflects the high status of the long-term settlement there, the *loco famoso* named by King Edgar in a charter of 958 (S667). The find of a Class E strap end at Tutbury (Fig. 87, 'F') corroborates further a tenth-century occupation of the site within the context of both a defensive signalling site, as well as a refuge with defensive compound, and suggests that the area was the site of settlement, if not necessarily the *burh* proposed by Kincey in 2011 (Kincey, 2011, 50-56).



Figure 87: WMID-7A70B6, a Thomas Class E strap end found at Tutbury. The reserved cells typical of a Class E type have been filled with adhesions due to its time in the ground. Image: PAS

The other significant cluster of finds visible in Fig. 86 is in the north of Staffordshire between Waterhouses and Ilam (Fig. 86, cluster 'G'). The discovery of pre-900 types such as WMID-9F76B6 (see Fig. 88, below) with a distinctive 'Trewiddle style' engraved design indicates that strap ends were in longer use here, implying long term higher status settlement; 'Trewiddle style' designs are characteristic design traits of the ninth century (Thomas, 2003, 2). The discovery of three Class E types in the same area shows that the settlement here continued into the tenth century, and the concentration of finds within such a small area suggests that the settlement here was of relatively high status or prosperity. Although three local settlements are recorded in *Domesday*, no details are given however, suggesting that this may be an area of royal estates, perhaps established as 'farms of one night' as seen in royal lands in Wessex (Stafford, 1980, 491; Lavelle, 2010b, 200-205; Open Domesday Database).



Figure 88: WMID-9F76B6, a Thomas Class A, type 1 strap end found at Ilam, Staffs. Image: PAS

Stanton, the village likely granted by Æthelflæd to Ealhelm in 914 lies 4.5km south of Ilam, again with no household details given in *Domesday*, from which it can be inferred that this grant too may have come from the royal estates nearby that Æthelflæd a suitable reward (S224).



Figure 89: DENO-AE67F4 (top) and WMID-A4D7E1 (bottom), two Thomas Class E strap ends found near Ilam, Staffs. Image: PAS

## Discussion

The distribution of strap end finds within the West Midlands made visible by the modern growth of metal detecting and the PAS demonstrates that the commonly-held view that these items were not prevalent in Mercian fashion is, to an extent, erroneous. Indeed, while the pattern of distribution and types found does indicate that strap ends were not in popular use in the eighth or ninth centuries, during the tenth century, strap ends appear to have been widely used as part of an ongoing fashion for the use of decorative metalwork as personal wear, likely as an indication of wealth or status. Although their use on items of wargear is likely to have been exclusively male, finds of earlier West Saxon types in female graves suggest that these were popular fashion items for both genders, with girdle-belts rather than buckled commonly being worn over both male tunics and female *gunna*, or over-tunics, by the ninth century (Thomas, 2000, 266).

The overlapping nature of many of the different Thomas classes means it is difficult to show when exactly the use of strap ends began, as many types were popular throughout the Late Anglo-Saxon period and PAS finds typically lack further archaeological context; however, the presence of tenth-century Thomas Class E types in all three counties shows that strap ends were in use throughout Western Mercia in the 900s. In Staffordshire and Shropshire, strap ends may have been previously used at high status sites before 900, but the pattern of use appears to increase in the tenth century, likely as more established trade routes developed and settlement was encouraged by the security provided by the burghal network, and possibly reflecting a sense of 'English' fashion developing from a Mercian regional identity. The patterns of distribution illustrate that the major transport links along the Roman road network appear to have been central to the spread of decorative ware and high status possessions, likely because of the security and trading hubs provided by the *burhs* and their attendant network of defensive sites and refuges, and also indicate that settlement was denser along these main routes.

In Cheshire, strap end usage appears to begin following the establishment of the *burh* at Chester, as resettlement and security allow for settlements to develop, and trade routes develop between Chester and the wider English commercial networks. This allows for the influx of ideas and fashions as well as material culture from other English productive sites; however, Chester appears to have become a major productive site of strap ends itself well into the eleventh century, likely due to the metal working industry already established there due to its significant minting activity. The resettlement of Chester and the expansion of English political control over the Cheshire Plain can be

seen in the distribution of finds spreading from Northwich to north Shropshire. This suggests that metalworkers at Chester were able to quickly capitalise on a growing fashion for strap ends, and it is possible that many of the finds from Shropshire and Staffordshire were manufactured at Chester and distributed along the trade routes between *burhs* and along the Roman road network, as well as being received through commerce with other productive sites throughout England along a wider trade network under the auspices of the protection of the *burhs*.



Figure 90: WMID-1C3CC6, a Thomas Class E1 'Winchester' type strap end, found adjacent to Watling Street at Weston-under-Lizard, Staffs. Image: PAS

## Conclusions:

Ceramics and metalwork within tenth-century Mercia form two radically different patterns of manufacture and usage, and yet there is valid comparison between the two, showing as they do two different dimensions of the relationships between the *Æthelflædan burhs* and the proliferation of material culture. The patterns of ceramic usage and the spread of West Saxon fashions in decorative metalwork personal wear illustrate the two forms of network which developed as a result of the development of the series of *burhs*: Stafford Ware is a prime example of an 'active' network of government control and productivity, with items seemingly produced to state-mandated specifications at a centralised site before being distributed to fulfil a specific function. It is noteworthy that the majority of ceramic manufacture in Wessex during this period appears to have occurred in rural contexts, with the exception of major population centres such as Winchester where demand was greater, while in the Wessex-occupied Midlands it originated at urban centres before similarly spreading to the countryside, in what Hinton argues is a result of traditional production sites and distribution networks being disrupted by Viking activity and subsequently recovering (Hinton, 2005, 160-161). Mercian production occurring only at Stafford until the late tenth century, however, demonstrates the extent to which this production had not developed organically, and was not subsequently significantly adopted by the local populace.



In contrast to Mercian pottery, the spread of strap ends perfectly illustrates a 'passive' network, providing more substance and context to the trade networks demonstrated by the numismatic distributions shown in Chapter 4, and indicating how along with the more prosaic trade goods listed in Æthelstan's Grately Code, the development of defensive networks and the establishment of more widespread trade links and routes also allowed for the spread of new fashions and ideas, and a growing homogeneity of certain cultural elements across former political borders.

These differences in inception can explain the differences seen in the patterns of distribution, as well as shedding light on both the function of the *burh* and wider defensive network, and the impact that this had on the local areas and population. That Stafford Ware appears to be the only ceramic type in use in early-tenth Mercia could be considered curious when the Mercian population seemed particularly eager to adopt other West Saxon fashions, as seen by the spread of strap ends, but the ways in which these items were produced and distributed may explain why. That Stafford Ware was produced explicitly at the *burh*, in a clearly designated production area presumably under Æthelflæd's explicit instruction, and was earmarked for what appears to have been solely military usage may explain why Mercians were hesitant to adopt the fashion. The apparent aceramic nature of West Mercia prior to the commencement of Stafford Ware production suggests that the Mercians had their own material culture substitutes for the everyday roles which ceramics had fulfilled in other regions, likely wood, leather or horn (Hinton 2006, 161), but probably none especially suited to the very specific roles of supplying easily-portable and stored supplies to dispersed garrisons which the new burghal network would require, especially in areas where the local population was more dispersed. Æthelflæd's predilection for Roman history, as well her assumed familiarity with West Saxon ceramics, would have suggested instituting her own ware as a perfect solution, with the added propaganda value of resurrecting the Roman Trent Vale Ware. Although the finds of Stafford Ware in Dublin do suggest that the ware entered civilian usage to some extent, in this case likely as an expedient storage vessel for use in maritime commerce from Chester, the extent to which Stafford Ware can be associated with military sites and defensive enclosures suggests a military use that did not readily translate into the civilian world; not only would there have been a shortage within Mercia of skilled potters to work outside of the confines of the Stafford *burh*, but it is also probable that there would have been little incentive for the Mercians to adopt a new means of functional material culture if their traditional alternatives remained available.

Strap ends, as a counterpoint to the functionality of Stafford Ware products, are a wholly fashionable item of material culture. Although they did likely enhance the service

lives of the belts, girdles and straps they decorated, their primary function remained as symbols of wealth and status, or simply as items of beautification and decoration. Unlike Stafford Ware, they would have been easily created by metalworkers already working in West Mercia without the need for extensively learning new skills, especially in the case of Thomas 'E' class types with less intricate engraving designs. Unlike the more prosaic items of Stafford Ware, their adoption would have been a matter of taste and popularity rather than from government mandate. Given Æthelflæd's evident success in ruling Mercia, it is entirely possible that elements of West Saxon fashion became popular in Mercia as a direct result of her influence, with it becoming popular at court to ape West Saxon trends in reciprocation for her own reinforcement of Mercian culture and identity. Similar cultural transfer appears to have occurred in the early ninth century as Cornwall was absorbed into Wessex and 'Trewiddle' designs became commonplace throughout Wessex and even appeared in Mercia (Hinton, 2006, 116). It could however simply be the case that as Mercian territory was consolidated and trade routes grew and developed that small elements of West Saxon fashion found themselves growing in popularity in Mercia.

The sudden proliferation of strap ends in West Mercia in the early tenth century, particularly in the Cheshire Plain and between Bridgnorth and Stafford, acts as a reflection of the distribution of Stafford Ware. Just as that distribution helps delineate the network of defensive sites and local stronghold integral to the Mercian civil defence network seen in Chapter 3, so the appearance of strap ends illustrates the areas which developed as a direct result of the security that system provided. The rapid adoption of what had previously been a West Saxon fashion suggests that settlers were keen to move to the new and prosperous territories secured by the burghal network, and that many might have brought the fashions with them from one border to another. That such decorative items appear so quickly suggests not only that a sizeable movement of population occurred, but also that these areas developed prosperously in a very short time, which in turn suggests a high degree of public confidence in the ability of the defensive network to protect them in such politically volatile times.

## Conclusions

Upon re-examining the Mercian *burhs* of the tenth century, it can be immediately concluded that this network is worthy of considerable re-interpretation, in regards to both its general and specific design and function. Indeed, an array of evidence challenges the standing assertion that these sites were part of a 'disparate and non-contemporary series' with elements designed to fulfil individual roles with no underlying macro-strategy (Haslam, 2006, 140). By approaching these *burhs* through the lens of landscape archaeology and network theory initially described by Baker and Brookes (2013) in their study of the *Burghal Hidage* sites in Wessex, a pattern emerges in Mercia that disputes both the argument that Æthelflæd did not envisage replicating the same closely integrated system her father had built in in Wessex in previous decades (Haslam, 2006, 140; Williams, 2013, 147), as well as that her system was just a blind repetition of that of her father. Rather, just as Abels and Carver predicted signs of a conscious attempt to establish a varied *Burghal Hidage*-style system within the Midlands as 'anchors of conquest' (Abels, 2013, 210; Carver, 2010b, 134-135; see also Baker and Brookes, 2013, 118), so a pattern emerges that illustrates a clearly defined and well planned network of sites which evolves Alfred's original burghal network into a similar yet distinct system actively matched to the defensive, economic and demographic needs and capabilities of the Mercian state. Although the various different elements of this system have been examined individually, they must also be interpreted in the manner in which they were designed to function, that is to say as a series of mutually supportive and overlapping networks and mechanisms of control and authority. Further to this, they can be approached in terms of active and passive networks of military and civil power.

That the *burhs* are being approached as a single, if complex, entity does not negate the investigation of individual sites, and indeed the design and functions of the *burhs* themselves is integral to understanding their role in the wider network, and how the ensuing network functioned as a whole. The diversity of physical design in West Mercian *burhs*, especially when compared to the relative homogeneity of West Saxon burghal planning, has been previously interpreted as being indicative of a lack of overall planning, instead representing *ad-hoc* construction to meet varying short-term political or military needs. This is not necessarily the case, however, and indeed may be symptomatic of the common underlying inclination to treat *burhs* as intrinsically proto-urban sites; the transformation of '*burh* to borough' seen in many of the *Burghal Hidage* cases such as Wallingford (Christie, Creighton and Edgeworth, 2013) can

easily be misinterpreted and 'reverse engineered' into a process somehow intrinsic to burghal development, and become a metric by which the 'success' of the *burh* may be judged. This, crucially, creates a narrative of teleological success and a tangible sense of continuity between modern towns and the Alfredian past which was central to the efforts of the Victorian historians who had pioneered Anglo-Saxons studies in order to emphasise a perceived longstanding history of English democracy, law and culture (Parker, 2007, 39-40); simultaneously, however, this arbitrary metric decrees that a *burh* which did not go on to develop an urban function had somehow failed. By this same metric, burghal sites at which an urban function was inherently unlikely, such as at Eddisbury hillfort, can be dismissed as being 'temporary' or not real *burhs* because they lacked even the potential for the development of a town.

When interpreting the Mercian burghal network in this way, it is equally important to consider those fortified sites and settlements which are not burhs, and the ways in which Æthelflæd's system was distinct, not only from the wider pattern of settlement and population in Mercia, but also from her father's system from which she had drawn inspiration. Excavation and investigation has shown a high level of defensive construction as well as civil development throughout the early tenth century at Mercian sites such as Gloucester, Hereford and Worcester, and yet these are conspicuous by their absence from the litany of burghal construction attributed to Æthelflæd in the Mercian Register (see Chapter 1). These sites are often included in any discussion of the Mercian burghal network (Baker, 2011; Carver 2010b), and indeed are included in the numismatic analysis of Mercian sites in Chapter 4. By the West Saxon standards against which *burhs* are typically compared, the inclusion of these sites is perfectly natural; they are important sites and settlements, usually at strategically valuable sites and linked to Roman roads, and given extensive new defences and often street plans in a wave of state-driven development and expansion, all tenets of Alfred's burghal network. It is tempting to dismiss this lack of ascribed burghal status in Mercian towns merely as an omission on the part of the scribes of the *Mercian Register*. However, the chronicle otherwise extensively records Æthelflæd's construction programme and it is unlikely that prominent settlements would be ignored when previously uninhabited sites such as Eddisbury are recorded. The extensive defences at locations such as Worcester, as well as in the church there, indicate that Æthelflæd clearly valued these sites and invested in their defence, but also suggests that the *burhs* existed as a separate, but supportive, element of the military and political landscape.

The logic by which Mercian *burhs* are readily disregarded as important sites is readily apparent: of all of Æthelflæd's *burhs* only Warwick, Chester and Tamworth appear to have developed an uninterrupted urban status; both Stafford and Bridgnorth may have

at least temporarily abandoned following the Norman Conquest, Bridgnorth developing its current urban status after a period of abandonment ending in 1102. Runcorn remained 'nothing but ... a few scattered tenements' until its rapid industrial development in the nineteenth century, a transformation which did not occur at Chirbury which remains a small, rural village despite a period of relative medieval prosperity (King, 1656, in Starkey, 1990, 73). At Eddisbury, the hillfort was abandoned apart from a later medieval hunting lodge, and for *Scergeat*, *Weardbyrig* and *Bremesbyrig*, not even definite locations are known. To interpret these disappearances and abandonments as failures, however, is to retroactively change the criteria by which the Mercian burghal network is to be appraised. A site that is primarily military and defensive in nature, for example, could be deemed a success rather than a failure if an expansion of the border means it is no longer necessary to maintain. This is a metric innately biased against the Mercian system, in which militarised *burhs* so often appear to stand distinct from the settled areas that would later develop a substantial urban function, and which in many cases are attributed as being *burhs* when in fact no such corroboration exists in the *Mercian Register*. This distinct system stands in contrast to that in Wessex, where the vast majority of sites later developed into permanent settlements of some form. The significant demographic and economic differences of the two states, however, are crucial to explaining these differences, and Mercian *burhs* therefore can be said to reflect not a lack of planning, but a specific tailoring of site function to fulfil necessary roles within a wider network, and a clear example of an active network of both military and civil use.

With the population of Mercia relatively low and dispersed when compared to Wessex (see Chapter 1), and much of the landscape between settlements still dominated by woodland and meadow, it is likely that the kingdom lacked the human and financial resources which enabled Alfred to establish *burhs* with such regularity within Wessex. Even those sites built potentially *de novo* in Wessex were likely to lie near populated areas capable of forming a supportive hinterland in order to support both provide and maintain a garrison, and *burhs* such as at Southwark, Bath, Exeter, Winchester or Hamwic were already long-standing towns or settlements. Without this regular population distribution, Æthelflæd would have needed to tailor the functions and design of burghal sites in order to be able to maintain a sufficient level of landscape control and defensive integrity without overstretching the logistical capacity of the Mercian state. Settlement was significantly less dense in Mercia, and significant settlements, such as Tamworth, Worcester, Gloucester or Shrewsbury were not necessarily still in areas deemed strategically important by the new frontlines of the Viking wars. A shrewd politician, Æthelflæd would have been acutely aware of her outsider status in

Mercia, and the consequent need to protect both those significant sites as well as maintaining the territorial integrity of Mercia as a whole. It is to that end that the Mercian burghal network must be considered as a defensive network distinct from, yet mutually supportive with, other Mercian towns.

This consideration of political sites is particularly evident at Tamworth. Although not necessarily Æthelflæd's capital, Tamworth was a site of great political significance to Mercia, and is likely to have been the capital of Offa's eighth-century Mercian hegemony. Archaeological evidence from the town suggests a substantial palace complex as well as a relatively high level of settlement (Basset, 2011), and it is likely that Tamworth was granted burghal function at least partly due to this significant history. Although Tamworth is in an important strategic location along Watling Street, the nearby settlement at Wall sits on the junction of Watling Street and Ryknild Street at the base of the Trent Valley, while Lichfield to the north not only guards Ryknild Street and the Trent, but is also an episcopal seat, with both sites preventing highly viable alternatives to Tamworth with potentially even greater strategic worth. That Tamworth was chosen when Æthelflæd was otherwise ready to garrison strategic sites over population centres suggests a clear interest in maintaining the importance of Tamworth as a Mercian political centre. This trend is reflected in the numismatic evidence, whereby Tamworth maintains a near-constant output throughout the tenth century, but on a much lesser scale than other mint sites, likely as a signifier of prestige rather than in a major economic role. This is exemplified by the issues minted in some number at Tamworth in 943 after the town was raided, as a signal that Edmund's control had been restored there.

Of all of the Mercian *burhs*, Chester was one of the best suited to fulfil a diverse series of roles, military, economic and symbolic, within the wider network, and as such is somewhat of an anomaly, appearing more in common with some of the West Saxon *burhs* of the *Burghal Hidage* than its Mercian contemporaries. The sudden proliferation of decorative metalwork which appears across the Cheshire plain around the turn of the tenth century (see Chapter 5) is suggestive of a rapid influx of population and growth of trade, potentially from more southern and heavily populated areas of Mercia near the West Saxon border where such items had long been in fashion, into an area which a mere decade earlier the *Anglo-Saxon Chronicle* had described as abandoned and desolate. The adoption of strap ends as elements of decorative personal wear increased throughout Mercia during the early tenth century, but both Shropshire and Staffordshire show some elements of their prior use in finds of mid-ninth-century or earlier styles. The lack of finds dating earlier than the late eighth- to early ninth

centuries in Cheshire is consistent with the area being sparsely populated and the city itself being abandoned before the establishment of the *burh* in 907.

Whether this stabilisation allowing for the influx of trade goods or settlers was the result of a conscious attempt by Æthelflæd and her *ealdormen* to establish a sufficient hinterland in order to support the new *burh* at Chester or simply the result of an organic migration to newly-consolidated lands under the auspices of the new burghal garrison may be impossible to truly establish, however the *burh* would be functionally useless without the means to provide and maintain a garrison force and the two surviving charters of Æthelflæd indicate that she employed the practice of granting surrounding land to her *thegns* and *ealdormen* soon after the establishment of other burghal sites. It is likely, therefore, that this proliferation of finds is evidence of an active attempt by Æthelflæd to create a hinterland around Chester in order to provide a population from which to draw a garrison, and an economy both to support it and to further the prosperity of the Mercian state.

Chester's strategic location at the mouth of the Dee and near the borders of both Wales and the Danelaw via the Aire Gap made it a vitally important linchpin in the defence of northern Mercia, a situation improved by the security provided by the surviving Roman walls around the city (Bond, 1987). The importance of Chester's walled defences and the prestige in which they were held can be seen in the numismatic evidence, with towers providing a central theme to the pictorial designs common on Chester-minted pennies throughout Æthelflæd's reign. It was likely the safety provided by those walls which enabled the city to develop so rapidly, and become the major economic and minting centre it was by the time of Æthelstan's accession to the throne. Chester's location at a crossroads of maritime and inland communication routes was also key to its rapid commercial growth, as can be seen through the widespread distribution of Chester issued coinage as early as Edward the Elder's reign, and only increasing in volume throughout the course of the tenth century.

The pattern of deposition of single finds in England throughout the Midlands, the North and as far as London and Kent is indicative of Chester's role as a hub of a far-flung internal trade network, however the distribution of hoard finds along the east coast of Ireland illustrates Chester's economic value very clearly. The significant number of both sizeable hoards and small finds distributed throughout Hiberno-Norse areas seen in Chapter 4 show that the flow of English currency across the Irish Sea was prevalent throughout the tenth century, with the variety of mixed issues found indicative that this was most likely due to rotating trader reserves and commerce, rather than as the result of plunder or *Danegeld*. Chester, therefore, was a conduit through which Hiberno-



Norse goods and trade from Ireland and the Isle of Man, and thus likely by extension Viking colonies in the Scottish Isles, could flow into England, and vice versa.

Chester's location was perfectly suited to this economic role, with the River Dee and the nearby Welsh border providing easy access to foreign traders, and Watling Street providing a major artery for internal traders and goods not only from within Mercia, but as far as London. The export of English goods most likely took the form of metalwork, of which numerous examples have been found near Dublin, as well as ceramics, salt and slaves (Lewis and Thacker, 2003, 16-33), and was clearly lucrative; similar trade also fuelled the rapid development of the new port at Bristol during the same period (Lobel and Wilson, 1975, 3). With London still recovering from the major plague outbreak which had struck in the late 890s, it is perhaps not surprising that Chester, which boasted many of the same geographical advantages as that city, rose so rapidly to become one of the preeminent economic sites in England, even outstripping the numismatic output that London had achieved in Alfred's reign (Blackburn, 1996, 162).

Chester's rapid growth and economic importance is central to identifying the functions and design behind the ensuing burghal network which Æthelflæd constructed throughout West Mercia. The relative proximity of the episcopal seat at Lichfield means that Chester did not gain a cathedral, but it was nonetheless ecclesiastically important, with the relics of both Saint Werburgh and potentially Saint Oswald both transferred there by Æthelflæd (Tait, 1917, 8-13; Stancliffe and Cambridge, 1995, 120), and the city was also an important civic centre, hosting the shire court (Harris, 1987, 237). This development can be seen reflected in the design of the other nearby Mercian *burhs*. As discussed in Chapter 2, the burghal site at Eddisbury Hillfort was almost certainly purely military in nature, and although there is little archaeological trace of the *burh* at Runcorn, the lack of later medieval settlement at the site or of any Runcorn-minted coinage suggests that this *burh* was also purely military in function. The level of preparation and construction work carried out at Eddisbury suggests that the *burh* there was far more than a temporary or emergency fortification. However, the proximity of Chester and its accessibility stemming from the Roman road network, combined with the dispersed nature of the population outside of Chester's rapidly developing hinterland, would have negated the need for Æthelflæd to install religious or civic structures in those sites. With the economic, civic and religious needs of the population already fulfilled, the Mercian state could instead leave Eddisbury and Runcorn to be inhabited only by rotating garrisons drawn from the local *fyrð*, or used as emergency mustering fields in the event of crisis, providing overlapping hubs of defence for the Cheshire plain against avenues of attack from the Irish sea, Gwynedd, the Aire Gap

and Watling Street while reducing the significant expenditure of manpower and materiel which had already been seen in Alfred's West Saxon burghal network.

The establishment of such largely military sites appears to have been the key facet of Æthelflæd's plan for a Mercian burghal network, one which assuaged the economic and demographic problems of establishing an adequate level of defence and organisation in areas with disparate populations and low-intensity economic activity. This is a factor of design which stands the Mercian system well apart from much of the West Saxon. With civil hubs established in the *burhs* at Chester and Tamworth, the remaining Mercian *burhs* appear to have been focused on providing hubs of state control in important strategic points rather than by necessity in areas of settlement. Bridgnorth was most likely another purely military site (see Chapter 2), providing a level of security for towns such as Shrewsbury and Wroxeter and settlements such as those at Worfield and *Eastun*, as well as guarding a highly strategic river crossing which had been used by two successive Viking incursions into the Mercian heartlands. As at Eddisbury, the civic infrastructure which might have been expected in the *burh* at Bridgnorth was already established elsewhere; unlike the Cheshire plain, there appears to have been a pre-established pattern of Anglo-Saxon settlement near Bridgnorth, and it is likely that the civic and religious functionality was already fulfilled in nearby Shrewsbury, which itself was a significant mint site, as well as potentially in the nearby settlements themselves. *Scergeat* and *Bremesbyrig* also appear to have been purely military installations; a complete lack of physical evidence for, or remains from, either is indicative that these *burhs* were designated a specific strategic function rather than intended as multi-role sites. This may suggest that they were located near prior areas of settlement or other *burhs*, or at transport junctions which were strategically important but possessed little economic value, and later abandoned when the changing military and political landscape of England no longer justified the cost of their maintenance, as most probably occurred at Eddisbury, Runcorn and Bridgnorth.

The *burh* at *Weardbyrig* is a curious anomaly: the lack of definite physical evidence for a site suggests that this too was a military location which lacked the requisite civil functions or population to develop into a settlement, however, as seen in Chapter 4, *Weardbyrig* was an active mint site, albeit on a limited scale. This leaves us with two main possibilities: The first is that the type of politically motivated minting which occurred during issues such as Æthelstan's *Rex totius Britanniae* series was carried out at all burghal sites as an illustration of political and economic power, but with only a limited output from non-settlement *burhs*, of which only a few *Weardbyrig* issues are known due to the vagaries of archaeological survival and discovery. The second, and far more probable, scenario is that these issues were limited to settlement *burhs* and

established mints such as Shrewsbury, and that *Weardbyrig* was indeed settled to some extent, or was in some form a site of political significance worthy of numismatically acknowledging. Among the sites suggested as potential locations for *Weardbyrig*, two seem particularly likely on toponymical grounds: Warburton in north Cheshire, and Tutbury, as suggested by Hislop, Kinsey and Williams on the grounds that *weard* and *tōt* were interchangeable terms (Hislop *et al*, 2011, 11; Kinsey, 2011, 50-56).

As an Anglo-Saxon defensive site and an important node of the network of surveillance and signalling sites discussed in Chapter 3, with both a watch-hill and a potentially Anglo-Saxon defensive enclosure, or *burh* in its most literal sense, Tutbury is in a prime defensive position. The site overlooks the confluence of the Rivers Trent and Dove as well as Ryknield Street and Derby, and is connected directly to Tamworth by the Roman road network, while the discovery of Stafford Ware at the site implies a garrison presence. However, to suggest that the terms are so interchangeable as to have switched entirely between 915 and *Domesday* is perhaps overly optimistic, and it is more likely that Tutbury instead served as one of the 'local refuges' as discussed by Baker and Brookes, in this case designed to shelter the population from the Trent valley as well as prominent nearby settlements such as Hanbury and delay any attacker until relieved by the burghal garrison from Tamworth or Stafford. The alternative, Warburton in Cheshire, is also also a highly viable site. Located almost equidistantly between Runcorn and Manchester, Warburton lies on the south bank of the River Mersey and is listed in *Domesday* as *Wareburgetune*. Warburton is already noted as a potential surveillance and signalling site (see Chapter 4), with an adjacent artificial mound and evidence of a defensive earthwork (NMR SJ 69 SE 23; Nevell, 2000, 49), however its name may also derive from Saint Werburgh, to whom the medieval church was dedicated. The presence of the church, however, suggests an underlying level of settlement which may explain why *Wearbyrig* was chosen as a mint site even if its *burh* was purely military in function.

The function and design of the *burh* at Chirbury may have been ostensibly similar to that at *Wearbyrig*, although the paucity of evidence for both sites makes significant comparison difficult. As discussed in Chapter 2, little evidence of the Chirbury defences remains, and the projected plan of the circuit there is hypothetical, however its location is strategically important, at a Roman road river crossing and overlooking Offa's Dyke. Despite possessing a developed Anglo-Saxon settlement, Chirbury does appear to have been another military *burh* rather one with an ancillary civic centre, with no evidence of minting activity, or signs of civil development as seen at other sites. Similarly to *Wearbyrig*, Chirbury appear to have been a civic centre in some form, at

least ecclesiastically, boasting two churches at *Domesday*, and being a sizeable village of twenty-three households. Toponymically, Chirbury refers to being the *burh* of the churches, and it is probable that Chirbury was selected to be developed as a *burh* as the settlement already occupied a strategically important point and provided a ready base for expansion and construction, rather than representing Æthelflæd's need to establish a node of civil as well as military control along the Welsh frontier.

The functionality of a Mercian burghal network comprising a majority of military sites rather than settlements may have hinged to a significant degree on the *burh* at Stafford, in a way which emphasises another 'active network' of Mercian state power: logistics. Carver's theory that Stafford was intentioned as a supply depot for the other Mercian *burhs* (Carver, 2010a) is borne out by the substantial areas of the site devoted to the industrial scale production of bread, bannocks and pottery, and the processing of large numbers of cattle and other livestock, and supported by the correlation of finds of Stafford Ware pottery storage vessels with sites of tenth century strategic significance or military presence. As discussed in Chapters 1 and 5, the *burh* at Stafford appears to have been a military site constructed *de novo* with the primary role to supply provisions and materiel, likely for the maintenance of the *fyrð*, however, the site avoids many of the hallmarks of other purely military *burhs*. Stafford was a mint site, active for Æthelstan's *Rex totius Britanniae* series, as well as a site of ecclesiastical interest, with Æthelflæd founding the central church of St. Bertelin along with the *burh* in 913.

With Stafford close to the *burh* at Tamworth, the high-status town at Penkridge and the episcopal see at Lichfield, the construction of civil infrastructure may at first seem puzzling when compared with other military sites such as Eddisbury, but is easily explained by the primary function of Stafford. The large-scale manufacturing and food processing which occurred at the site would have necessitated not only investment in infrastructure such as wells, ovens and kilns, but also an established permanent population in the form of bakers, potters, butchers and other crafts required for the daily maintenance of supplies. Stafford also likely attracted a relatively large transient population of farmers and herders for the delivery of grain and animals, and either *fyrð* garrisons or supply trains in order to distribute produce. In return, this population would have required the amenities of a town, and establishing a mint site at Stafford was an effective way for Æthelflæd to advertise the capabilities of her state in successfully establishing such an extensive site from scratch. The establishment of St. Bertelin's at the centre of Stafford not only fulfilled the religious requirements of the local population, but also served as an important political tool, promoting a traditional Mercian saint as a strong reminder of Æthelflæd's ties to Mercia, and no doubt assuaging worries that her

West Saxon heritage would lead to an erosion of traditional Mercian heritage and culture.

The Mercian *burhs* can thus already be re-interpreted. Rather than a series of *ad-hoc* fortifications and failed towns with a few successful exceptions, Æthelflæd's series appears as a network of specifically military sites distinct from a wider pattern of fortification at Mercian settlements and civic centres. Indeed, the *Anglo-Saxon Chronicle* itself differentiates between the two, stating that a Viking fleet which attacked Wales and southern Mercia in 914 was defeated by 'the men from Hereford and Gloucester and from the nearest boroughs', establishing a context in which the Mercian *burhs* maintain *fyrð* garrisons separate from the levies drawn from the towns (ASC, MS. C, s.a.914, Whitelock, 1961, p.63). Although not the case in this particular instance, where the urban garrisons joined the burghal *fyrð* to march out to battle, this further reinforces Baker and Brookes' theory of defence in depth, with burghal garrisons clearly able to react and mobilise in support of those in urban sites, or indeed other refuges. There is here a critical evolution of Æthelflæd's burghal network from that of her father, and one which shows her strategic ability in tailoring such a scheme to the realities of Mercia in using a network of *burhs* to establish necessary garrisons in sparsely populated yet strategic areas that were potentially unable to muster sufficient defensive manpower if left to their own devices. The establishment of the burghal garrisons themselves therefore is evidence of an 'active network' of government control, which in turn relied on two other mutually supportive active networks to function: logistics and communications.

The logistical capabilities of the Mercian state were discussed in Chapter 5, and appear to have been to some extent closely tied to the *burh* at Stafford. The logistics network established by Æthelflæd also appears closely linked to another active network discussed in Chapter 3, the surveillance and control of the Mercian landscape through a closely integrated network of defensive outposts and communication nodes. The extent to which these networks were integrated is discussed in Chapter 5, and can be best illustrated by the near-perfect association with which Stafford Ware sherds are located at sites with Anglo-Saxon defensive toponyms, earthworks or along strategically important roads near the Danelaw frontier. The presence of Stafford Ware remains within the defensive circuits at sites such as Leintwardine, Tutbury and Rocester is a strong indication that Mercian garrisons were maintained at those sites, and supplied at least to some extent from a central hub, correlating once more with Baker and Brookes' theory on burghal defence in depth utilising dispersed local strongholds. The case for an Anglo-Saxon visual communication network in Mercia is strong, and these strongholds appear to have been fully integrated into it. Hillforts

showing evidence of Anglo-Saxon re-occupation and containing often artificial mounds, such as Bury Bank near Tittensor, Bignall Hill near Stoke-on-Trent and Beeston Castle in Cheshire can all be seen as part of an intervisible network of sites in Cheshire, Staffordshire, and along the Danelaw border in Chapter 3, and more far-flung Stafford Ware find sites also appear to have been integrated into this network. Just south-east of Leintwardine, as one example, is a Totteredge Hill, which is likely to have served as a relay from the local garrison there to the wider network, as well as allowing for the surveillance of the landscape and the early warning of the local population to danger.

The network of surveillance and signalling sites appears to have included many hillforts or defensible sites, as well as locations with *tōt*- and *weard*- toponyms. Hillforts such as those at Worfield, Pattingham and Clee, as well as those previously mentioned at sites such as Bury Bank, lie on or adjacent to hills with *tōt* names, while Beeston Castle is just one of several hillforts clustered around Burwardsley on the eastern edge of the Cheshire Plain. Between these defences lies the proliferation of intervisible hilltops with defensive toponyms discussed in Chapter 3. The relative uniformity of design at these sites, with the recycling and reshaping of Bronze Age barrows and the construction of artificial mounds where no prior barrows existed in order to extend lines of sight and provide the basis for probable signalling stations, is indicative of the high levels of manpower investment that the Mercian state would have needed to establish and maintain this network, and the importance it held once it was active. As shown in Chapter 3, the network of sites is clustered heavily near the borders with the Danelaw, as could be expected, but also provides surveillance and communication between *burhs* and settlements along all strategic routes and rivers, and appears to continue throughout the Mercian heartland.

When the active networks of the tenth-century Mercian state are combined, they show a very clear image of the intended function and scope of Æthelflæd's burghal network. Although the Mercian *burhs* were similar to those in Wessex in terms presenting fortified sites at strategic transport and travel nodes, they are clearly differentiated by forming a network of distributed garrisons distinct from the fortification of Mercian population centres, and established in areas usually where the pre-existing population distribution and level of settlement development was not sufficient to maintain a necessary level of defence against Viking raids or invasion threats. With some notable exceptions in Tamworth, Chester and Stafford, these sites appear to have existed largely without attendant civic centres, but instead functioned as both defensible nodes on strategically vital roads, crossings and bridges as well as mustering sites from which garrison forces could be dispatched along those same roads in order to come to the defence of a dispersed network of strongholds and civic refuges designed for the

protection of the population at large. These local strongholds largely took the form of re-occupied hillforts and repaired Roman defensive circuits and themselves often lie close to Roman roads and major rivers, and in some cases appear to have maintained token garrisons of their own, likely in order to provide surveillance and early warning in the event of an attack, as well as to aid with the defence of the sites until the arrival of burghal reinforcements.

Key to this system of defence was the network of surveillance and communication sites established between the *burhs* and settlements and along strategically important routes. These intervisible points allowed for local populations to be forwarned in the event of an attack across the Danelaw or Welsh borders or from the Irish Sea, and allowed information on any threats to be rapidly communicated along major routes to enable the Mercian *fyrð* to respond rapidly to any incursions. Both the *burhs* and the distributed defensive sites appear to have received supplies through a logistical network which hinged on the *burh* at Stafford, itself critically located between the two main travel arteries West from the Danelaw, Watling Street and Rykeneld Street. The presence of Stafford Ware at so many *burhs* and defensive sites not only indicates a high level of logistical organisation and capability on the part of Æthelflæd's state, but also supports the interpretation of militarised network distinct from a programme of settlement fortification. A system of centralised supply was an expedient solution to the logistical problems caused by the establishment of significant garrisons in areas of low and dispersed population levels, where local agricultural efforts may not have been sufficient to meet the needs of feeding a large influx of fighting men, as well as maintaining dispersed detachments at muster points and communication nodes. The presence of Stafford Ware at sites such as Hereford and Gloucester may be indicative of shrewd political move as well, with royal supplies being distributed to those towns' garrisons in order to lessen the burden of defence on a Mercian aristocracy which Æthelflæd was keen to keep loyal to her cause.

Although the organisational, military and logistical capabilities of Æthelflæd's state were demonstrably impressive, we must be careful not to over-estimate the level and complexity of government which oversaw this system. It is tempting to project modern concepts of standing armies and military bases, with bureaucratic organisation and vast logistical capabilities, onto a system which indicates the presence of independent military sites, garrisons and a supply network. However we must abstain from seeing in tenth century Mercia a modern state, and instead see these systems in their contemporary context. Above all it must be remembered that the *fyrð* was a militia which, despite its duty rotations and level of organisation, still consisted of part-time soldiers who relied on their crops, cattle and other businesses. It is unlikely that these

*burhs* maintained substantial garrison forces outside of the campaigning season, and many would have acted more as muster points in times of crisis rather than as a modern military facility. Nonetheless, Æthelflæd's achievements remain substantial, and the concept of a separate military should not be dismissed out of hand as anachronous to the period.

An appearance to replicate or maintain elements of Britain's Roman imperial history had long been an important political tool in Anglo-Saxon England, particularly in the embracing of the Church and its continued projection of *Romanitas* (Lavelle, 2010a, 251). Alfred's embrace of *Romanitas* was extensive, perhaps as a result of his childhood visits to Rome in the 850s (Keynes and Lapidge, 2004, 14; Asser, *Life of King Alfred*, §7 and §12 in Keynes and Lapidge (eds.), 2004, 69-70), and was reflected personally as well as in his rule of England, through his donation of alms to Rome, and his personal translations of Latin works including Pope Gregory's *Pastoral Care* (Asser, §86-88 in Keynes and Lapidge (eds.), 2004, 99-100). Politically, Alfred had embraced the propaganda value of Roman symbolism in elements such as coinage to a degree 'almost unprecedented' in Anglo Saxon England (Blackburn, 1998, 113), and Lavelle and Hill argue that a similar degree of *Romanitas* was attained through the construction of the burghal network (Hill, 2003, 219-233; Lavelle, 2010a, 213). Specifically, this was by appealing to the Imperial legacy discussed in Æthelweard's *Chronicon* of the Romans as those who 'made cities, forts, bridges and streets with skill... to be seen to this day' (Æthelweard, *Chronicon Æthelweardi*, Campbell (ed.), 1962, 5; Lavelle, 2010a, 213). Hill in particular argues that the construction of the burghal fortifications, and the accompanying charter obligations of fortification, road and bridge maintenance were designed to evoke a link between Alfred's kingship and a Roman authority (Hill, 2003, 219-233). Indeed, Asser refers to Alfred's *burhs* with the same Latin terminology of *Castella* as Æthelweard uses to refer to Roman fortresses, and refers to his orders as 'Imperial decrees' (Asser, §91 in Keynes and Lapidge (eds.), 2004, 101).

This appreciation for *Romanitas* was clearly passed on from Alfred to Æthelflæd. Her inclusion in the 893 London 'colloquium' (Brooks, 1996, 143) suggests that her father was already keen for Æthelflæd to be involved in the running of her husband's kingdom, and considered her capable. Given Alfred's enthusiasm for education and appreciation for Roman history, it seems only natural that Æthelflæd too would widely embrace Roman ideas and styles during both her joint and independent reign. Æthelflæd's own use of *Romanitas* can be seen in her adoption of prior Roman sites; the restored legionary fortress at Chester became a central linchpin of both the kingdom's defences and the Mercian economy, a gateway for maritime traders who could witness the Mercian state's ability to resurrect England's prestigious Roman



heritage. The nature of the Mercian *burhs*, as distinct military centres with a centralised supply network, is reminiscent of Roman military organisation of army camps or *castra* distributed at strategic points and distinct from civilian settlements, with Carver arguing that even the rectilinear defensive circuits and road grids of the *burhs* and towns fortified by Æthelflæd were designed to conspicuously resemble the Roman military model (Carver, 2010b, 135). The restoration and maintenance of this Imperial infrastructure was conspicuously celebrated in the pictorial designs of Chester-issued coinage. The resurrection of Roman designs in Mercian state-produced material culture such as Stafford Ware suggests that these parallels with Rome were designed to be conspicuous from the highest to the lowest level of the state, to provide Æthelflæd with a clear prestige symbol in both the power of her state and its embracing of Roman strategy.

While Æthelflæd's embrace of *Romanitas* is far from unique, the forms in which this was manifested does provide interesting comparison with the burghal network of her father in Wessex, and her brother's expansion into the West Midlands. The organisational differences which distinguish Æthelflæd's series appear largely to be a reflection of the particular geographical and economic challenges of the Mercian borderlands (see Chapter 1). In Wessex, many of the sites fortified by Alfred had been significant pre-existing settlements, and even those which were not had largely been designed with a gradual urbanisation in mind, regardless of how aspirational this process remained (Lavelle, 2003, 39; Molyneaux, 2015, 107). For many of Æthelflæd's Mercian series, however, their design appears to have been purely military in nature (see Chapter 2). That sites such as Eddisbury or Bridgnorth were seemingly never intended to develop into permanent population centres does not mean that they should be confused with battlefield fortifications or as being in the "grey area" that Yorke suggests lies between those and a more formal system of urban defence construction and maintenance long-established in Wessex (Yorke, 1984, 61-70; 2013, 103-104). Indeed, the defensive infrastructure established between them suggests that these sites were designed with a similar long-term operational life as their West Saxon counterparts, albeit one not intended to be as permanent as the aspirational settlement planning in Wessex. The development of settlements such as Worcester or Hereford in the same period (Bassett, 2008;2011), however, suggests that these *burhs* were most likely designed to operate alongside a more 'traditional' West Saxon model of fortified towns and larger settlements, as indeed can be seen in the events of 914. There emerges no readily apparent parallel in Wessex for the centralised logistical network posited by Stafford Ware distribution, and indeed this system may have been unique to the Mercian borderlands; in Wessex and southern Mercia, more productive land and

settlements could have been more reasonably expected to provide a ready garrison force and bare the brunt of maintaining their fortifications and supplying food.

In the wake of these active, governmental networks, 'passive' and informal networks were able to rapidly develop, and integrate with a wider English nation. The growth of the Cheshire Plain, as evidenced by the sudden proliferation of decorative metalwork in the early tenth century, is part of a wider trend which illustrates the benefits of the burghal network on the civilian population beyond the immediate presence of defence against raiding and attack. The safety and security provided by the burghal network along major travel routes, as well as the establishing of new areas of settlement, allowed for the development of trade and commerce, as well as securing a series of prominent religious sites. The sudden prosperity of Chester's maritime trade has been previously discussed, and the distribution of finds from the city's mint shows that it was a major economic site on a national scale, but other Mercian sites similarly prospered.

There is unfortunately little concrete evidence as to the extent to which Æthelred or Æthelflæd developed an equivalent to the extensive network of royal estates, *vills* and *tuns* in Mercia which could be found in 'Cerdicing' family land across Wessex, and were foundations of royal power and authority (Lavelle, 2007; 2010, 201-204; Molyneaux, 2015, 52-53). By the eleventh century, according to Molyneaux, the royal family had few or no direct holdings in shires outside of Wessex, and hence weaker authority in those areas (Molyneaux, 2015, 53) yet some evidence of land grants, such as that by Æthelflæd to Ealhelm in 914 (S224, see above), suggest that at least at some point, there were royal lands in these territories. Given that Æthelflæd was well known to her ealdormen and actively involved in the running of her kingdom, we must assume to some extent that she practiced the same form of semi-itinerant kingship as her father, and later by her nephew Æthelstan (Molyneaux, 2015, 53). It is possible that sites such as Musden or Cauldon, which are mentioned in *Domesday* with no record of households, yet lie in the midst of a particularly dense distribution of high-status material culture finds, could represent the imposition of a similar series of royal estates and 'farms of one night' with which Æthelflæd would have been familiar as a royal support mechanism in Wessex (Lavelle, 2010b, 202-204).

Although the great majority of Æthelflæd's *burhs* were military sites which were not intended as permanent centres of population, some did develop or bolster their economic and civic stature. Tamworth, already a significant settlement, remained an active mint site throughout the tenth century, with finds distribution indicating that it too was well integrated into a wider English economic network. Although Stafford was only periodically the site of minting, mostly during the reign of Æthelred in the late tenth and

early eleventh centuries, it nonetheless developed into a large settlement, with the Church of St Bertelin, now the Church of St Mary, being a significant institution with thirteen Prebendary canons by the time of *Domesday* (Evans, 1970, 303). The security provided by the nearby *burhs* at both Stafford and Tamworth was likely also an important consideration behind King Eadred's decision to found the College of St Michael at Penkridge, both as a measure of safety after the area had come under attack from the Hiberno-Norse and Northumbrians in the 940s, and to further secure the loyalty of Mercia given the political turmoil with the Anglo-Scandinavian population of the former Danelaw during Eadred's reign (Styles, 1970, 298). The corpus of tenth century metalwork found throughout Mercia is indicative not only of a growing prosperity, but also of the adoption of West Saxon personal styles, even if the adoption of goods such as ceramics remained far more low key and confined to towns.

When re-evaluated, Æthelflæd's Mercian burghal network represents far more than a series of *ad-hoc* fortifications and disparate sites. Overall, the burghal network appears to have allowed for the assimilation of Mercia into a wider, nascent England both politically and culturally. The *burhs* formed the hubs of a sophisticated network of civil defence, which made extensive use of the topography and landscape of the West Midlands in order to concentrate the limited population and resources of the Mercian state to effectively provide security and control over a large, but sparsely populated, frontier. Distributed garrisons with an organised chain of surveillance and communication sites were able to project Mercian power along strategic routes and reinforce local defences or to intercept invading forces, whilst forming hubs of government authority which allowed for the development of civilian settlements and the establishment of new towns and trade links. The construction and maintenance of an extensive series of fortified sites alongside the simultaneous fortification of Mercian towns, combined with the maintenance of the Roman road network and the establishment of signalling points and local refuges, is an illustration of the logistical and organisational capabilities of Æthelflæd's government. The extent of construction at sites such as Eddisbury shows that while these *burhs* may not have been intended to develop into permanent settlements, they were nonetheless built as part of a conscious scheme envisioning the need for long term defence of an area, a wise precaution given the length of conflict between the Anglo-Saxon kingdoms and the Danelaw and periodic resurgences of Viking raiding and invasion. It is perhaps only because the Mercian network was so effective that it has been retrospectively seen as short-lived.

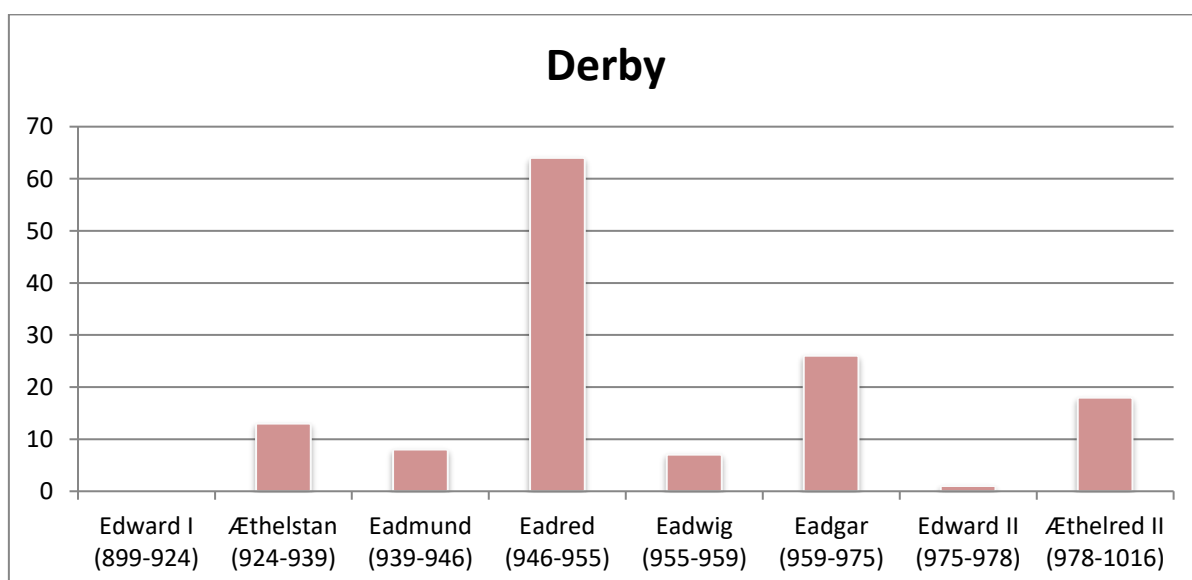
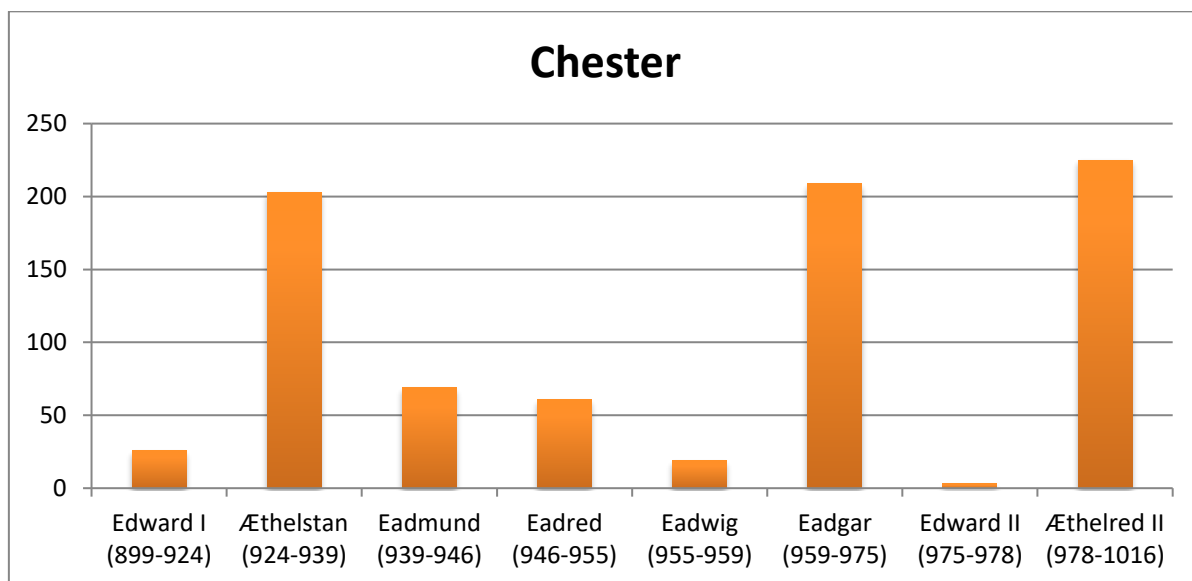
## Appendices

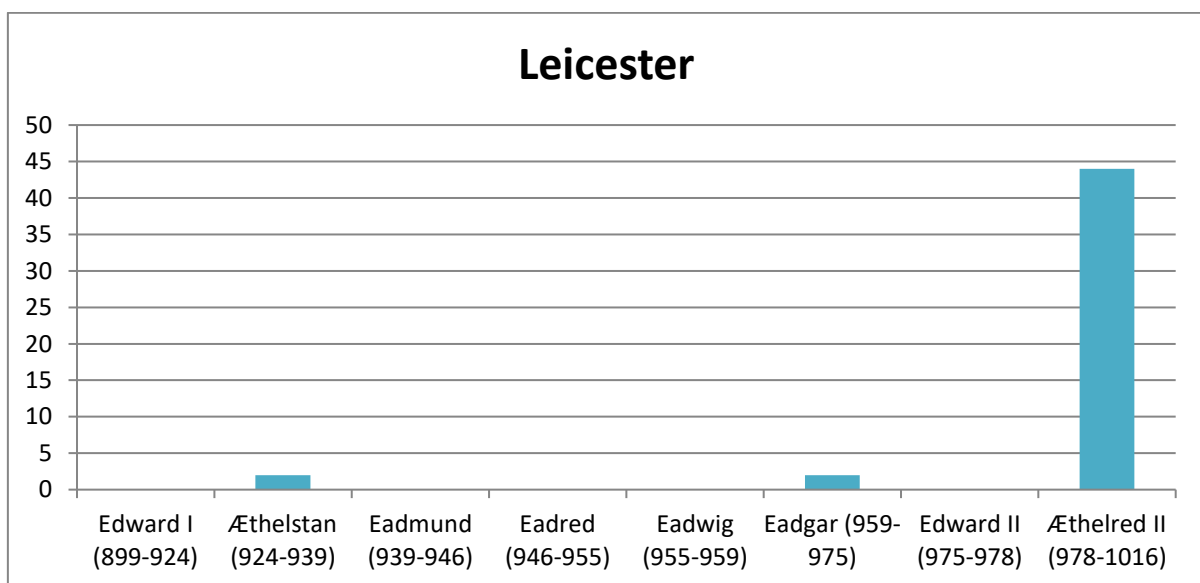
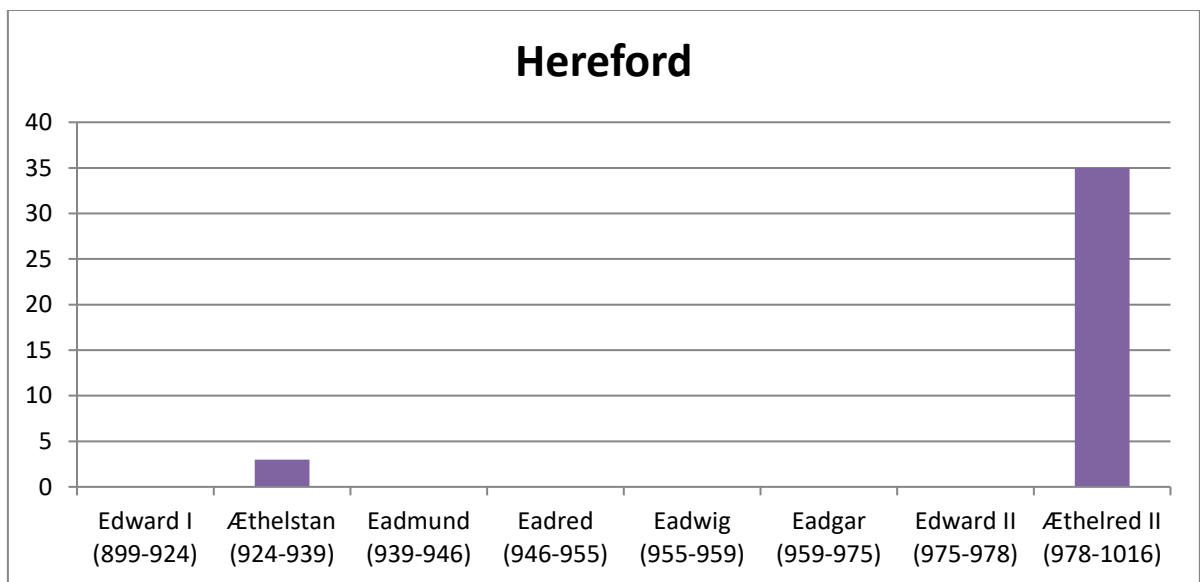
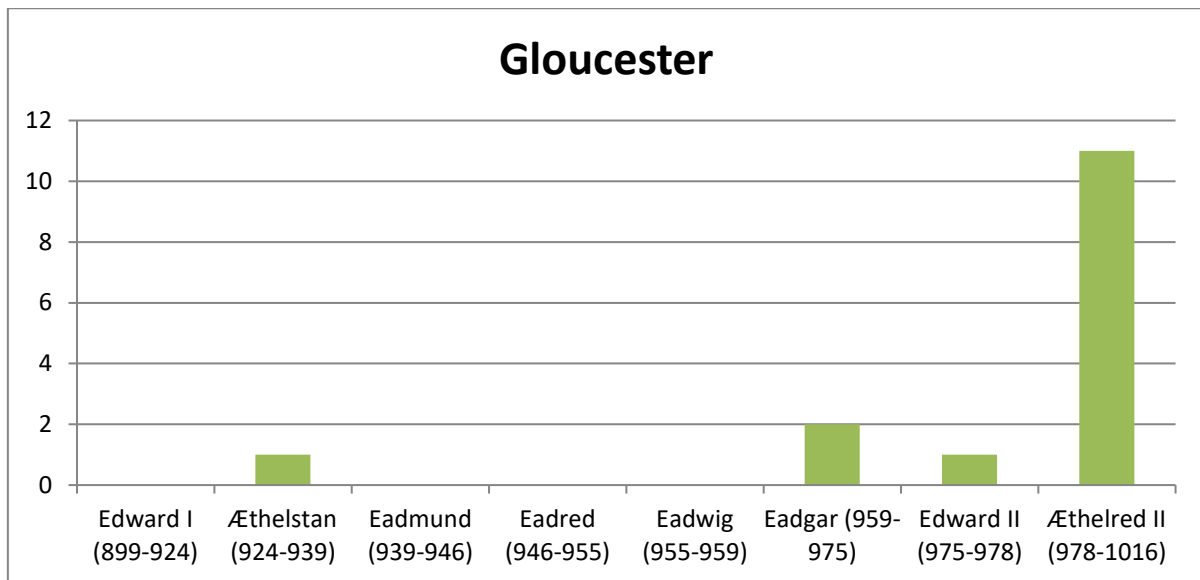
### Appendix 1: Field Observations of potential surveillance and signal sites

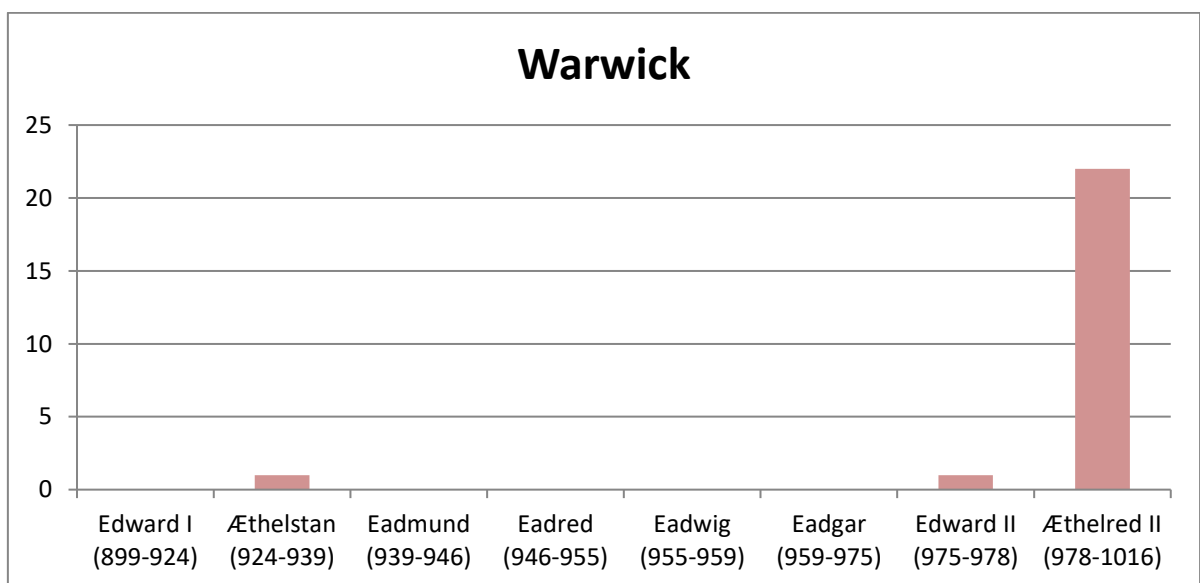
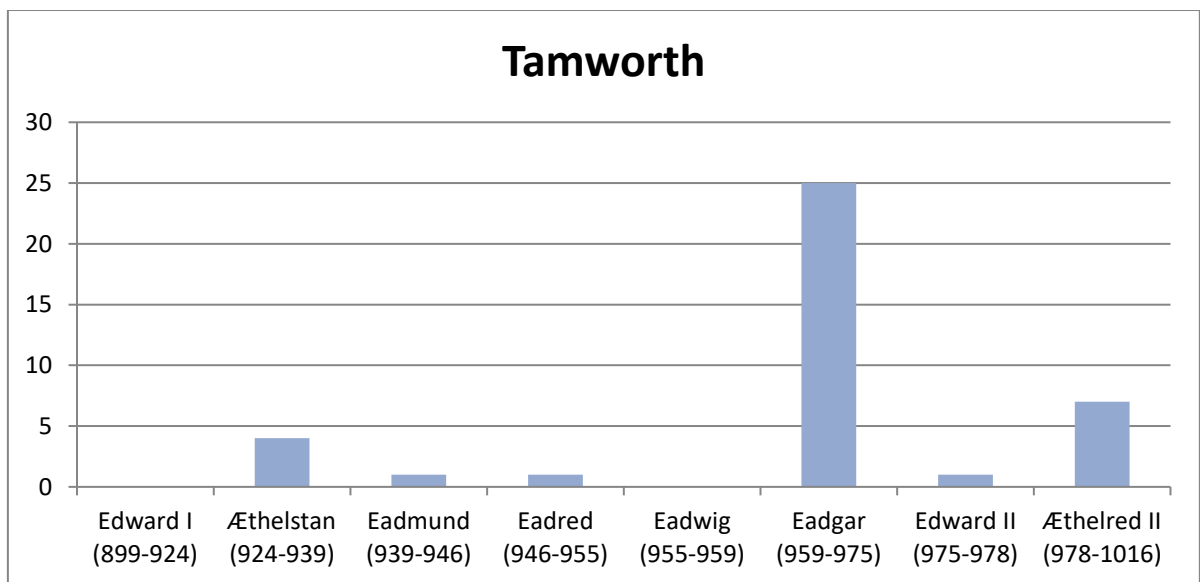
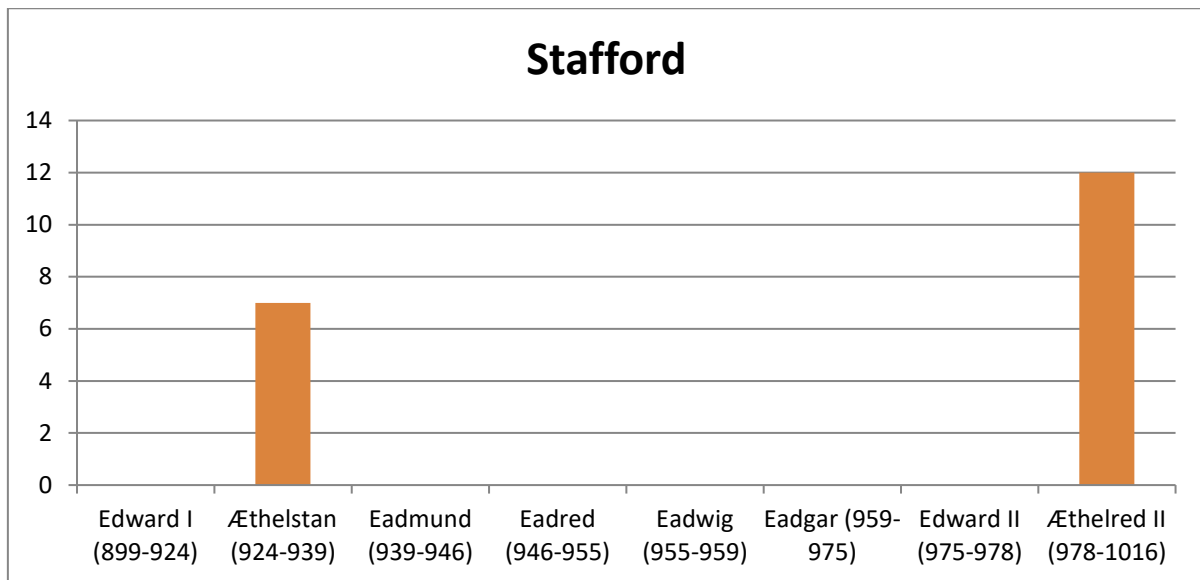
County	Site	Toponym	Elev. (approx.)	Rogus		Land Use	Visibility			Weather
				Diam. (m)	Elev. (m)		Road	River	Settlement	
Staffordshire	Tutbury	tōt	90m	n/a	n/a	Castle	Y	Y	Y	Sunshine
Staffordshire	Toothill, Uttoxeter	tōt	150m	25	1.5	Pasture	Y	Y	Y	Light Cloud
Staffordshire	Toot Hill, Hollington	tōt	150m	16	1.2	Agriculture	Y	Y	Y	Light Cloud
Staffordshire	Toothill, Alton	tōt	178m	n/a	n/a	Agriculture	N	N	Y	Overcast
Staffordshire	Totmonslow	tōt	179m	n/a	n/a	Agriculture	Y	Y	Y	Sunshine
Staffordshire	Beacon Hill, Penkridge		119m	n/a	n/a	Agriculture	Y	N	Y	Sunshine
Staffordshire	Beacon Hill, Stafford		137m	60	2	Nature Reserve	Y	Y	Y	Sunshine
Staffordshire	Pirehill	piren	141m	35	1.5	Farmyard	Y	Y	Y	Sunshine
Staffordshire	Saxon's Lowe, Tittensor	hlaw	160m	35	2	Pasture	Y	Y	Y	Sunshine
Cheshire	Toothill Croft, Waverton	tōt	35m	n/a	n/a	Gardens	Y	N	Y	Overcast
Cheshire	Burwardsley	weard	150m	40	2	Pasture	Y	Y	Y	Light Rain
Cheshire	Beeston		107m	n/a	n/a	Castle	Y	Y	Y	Light Rain
Cheshire	Wardle	weard	60m	n/a	n/a	Industrial Estate	Y	Y	Y	Light Cloud
Cheshire	Bignall End		236m	n/a	n/a	Mining/Spoil	Y	Y	Y	Light Rain

## Appendix 2.1: Burghal Mint Outputs

These graphs show the total number of extant coins issued from each West Mercian mint, with the exception of Worcester, distributed by reign. These represent only the surviving fraction of the total number of coins issued at each mint, and thus cannot be used to identify actual production figures. Nonetheless, they do provide a useful representation of the general trends in minting and changes in production over the course of the tenth century. In each case, data is taken from the databases of the SCBI, EMC and PAS.

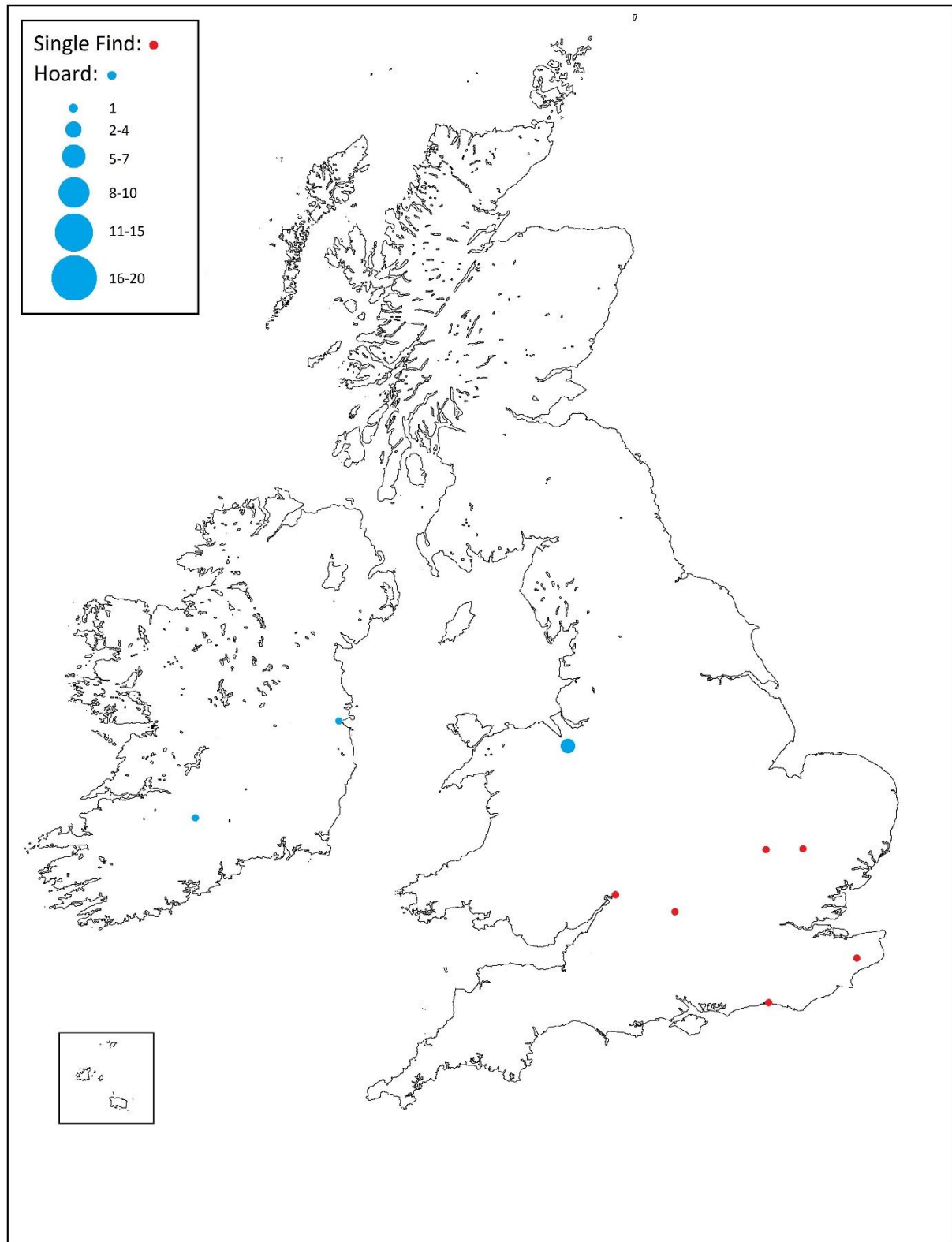






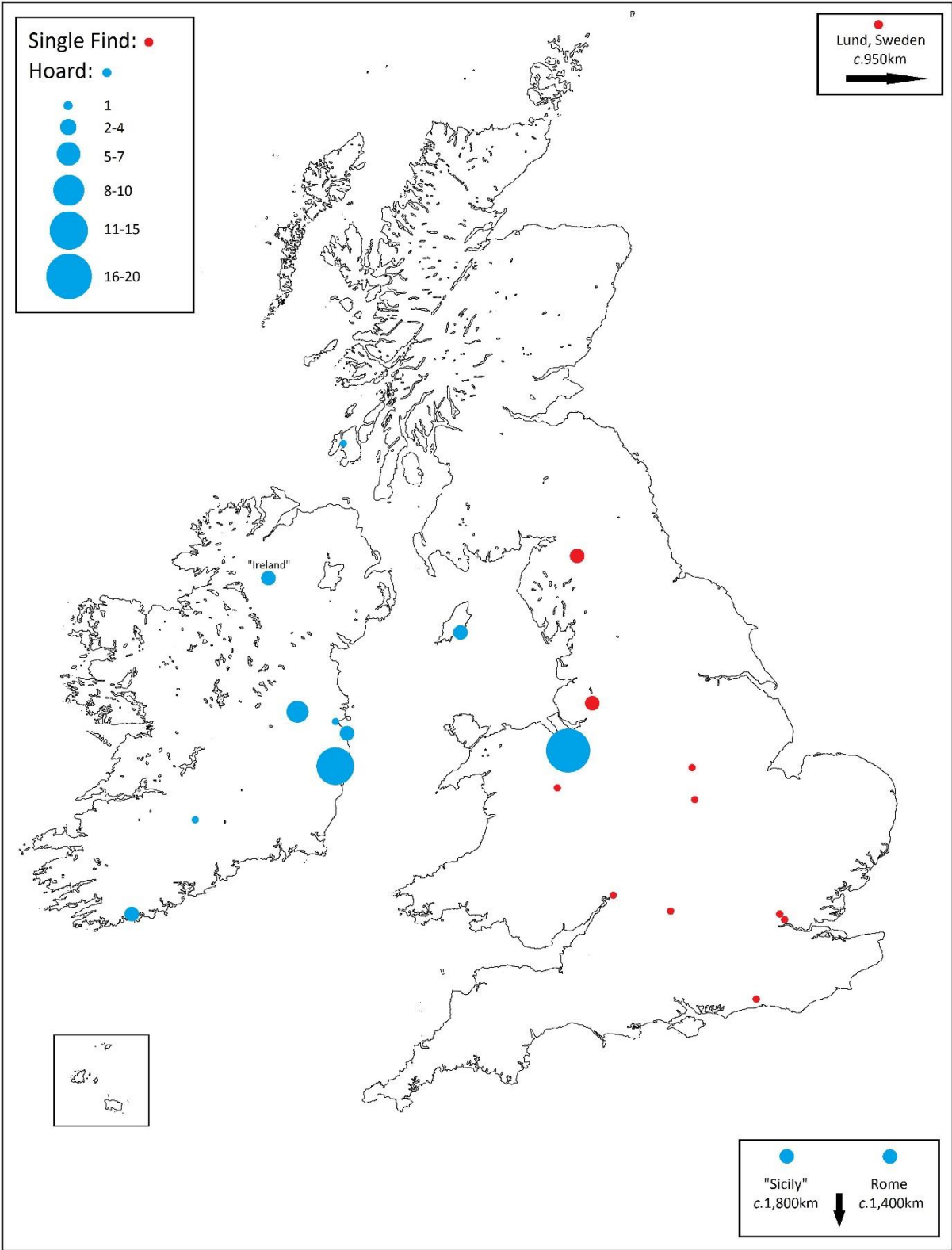
**Appendix 2.2: Distribution of Finds of the Chester Mint by Reign, c.899-1016,  
based on data of finds recorded in the SCBI, EMC and PAS databases**

**1.2.1: Edward the Elder, 899-924**

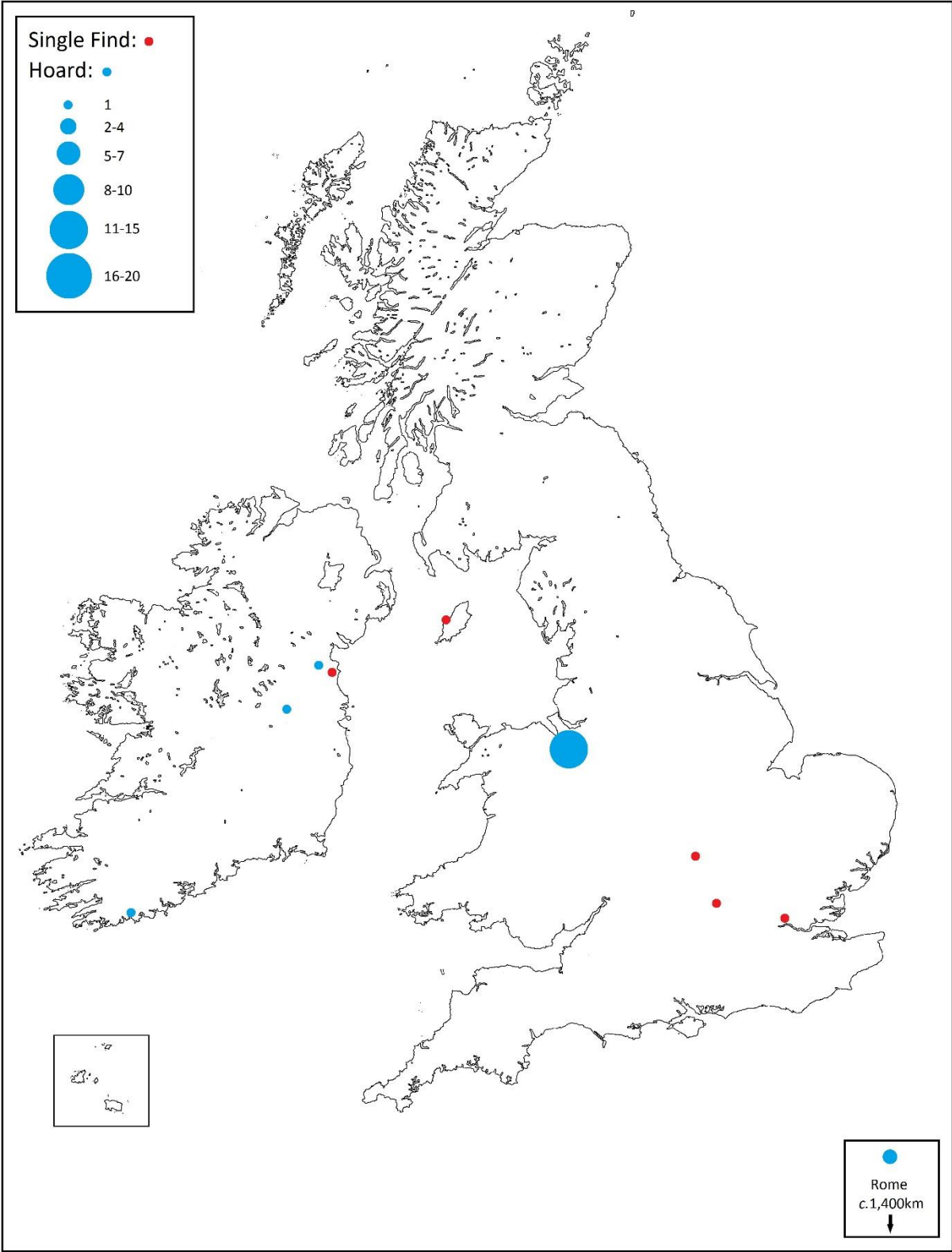




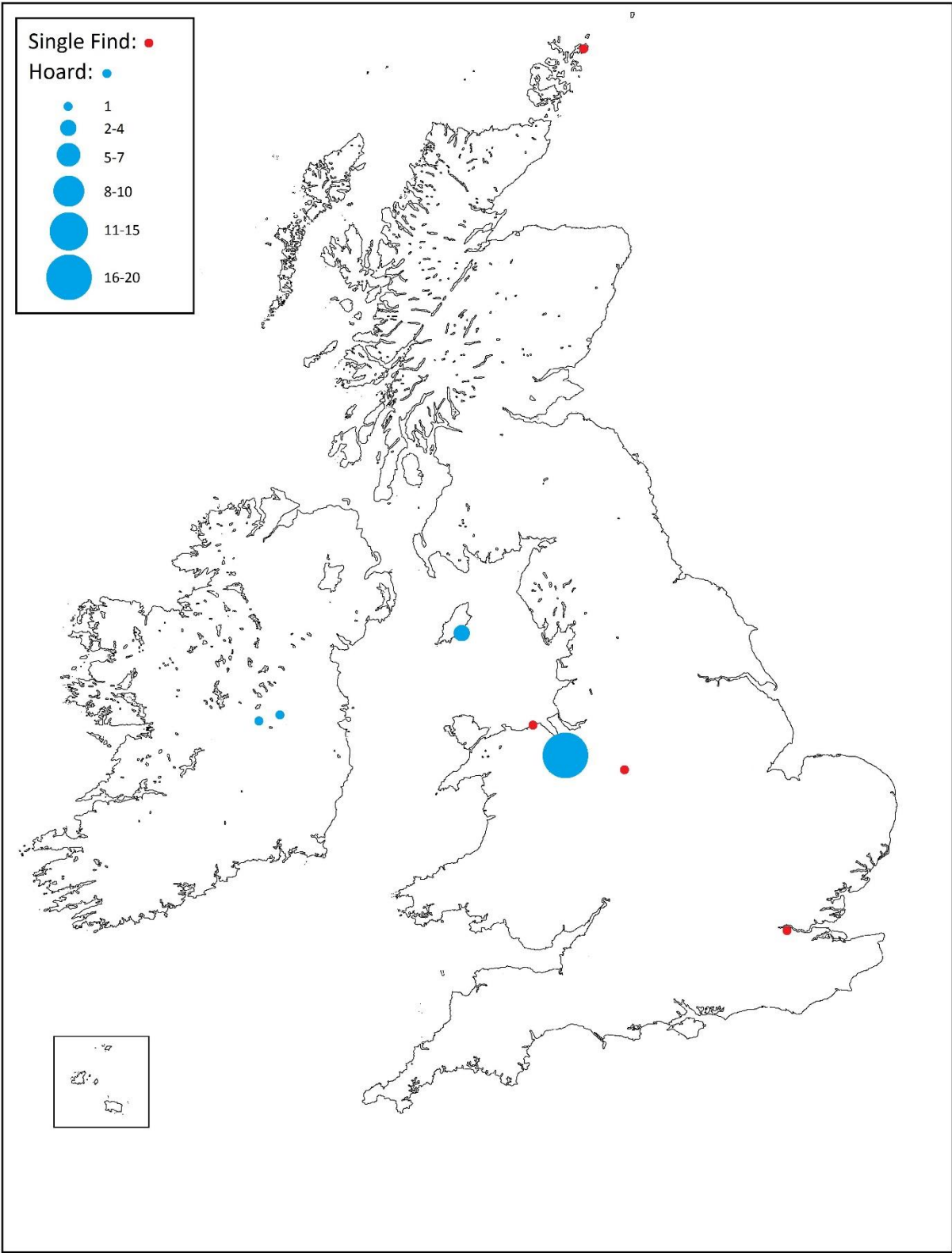
1.2.2: Æthelstan, 924-939



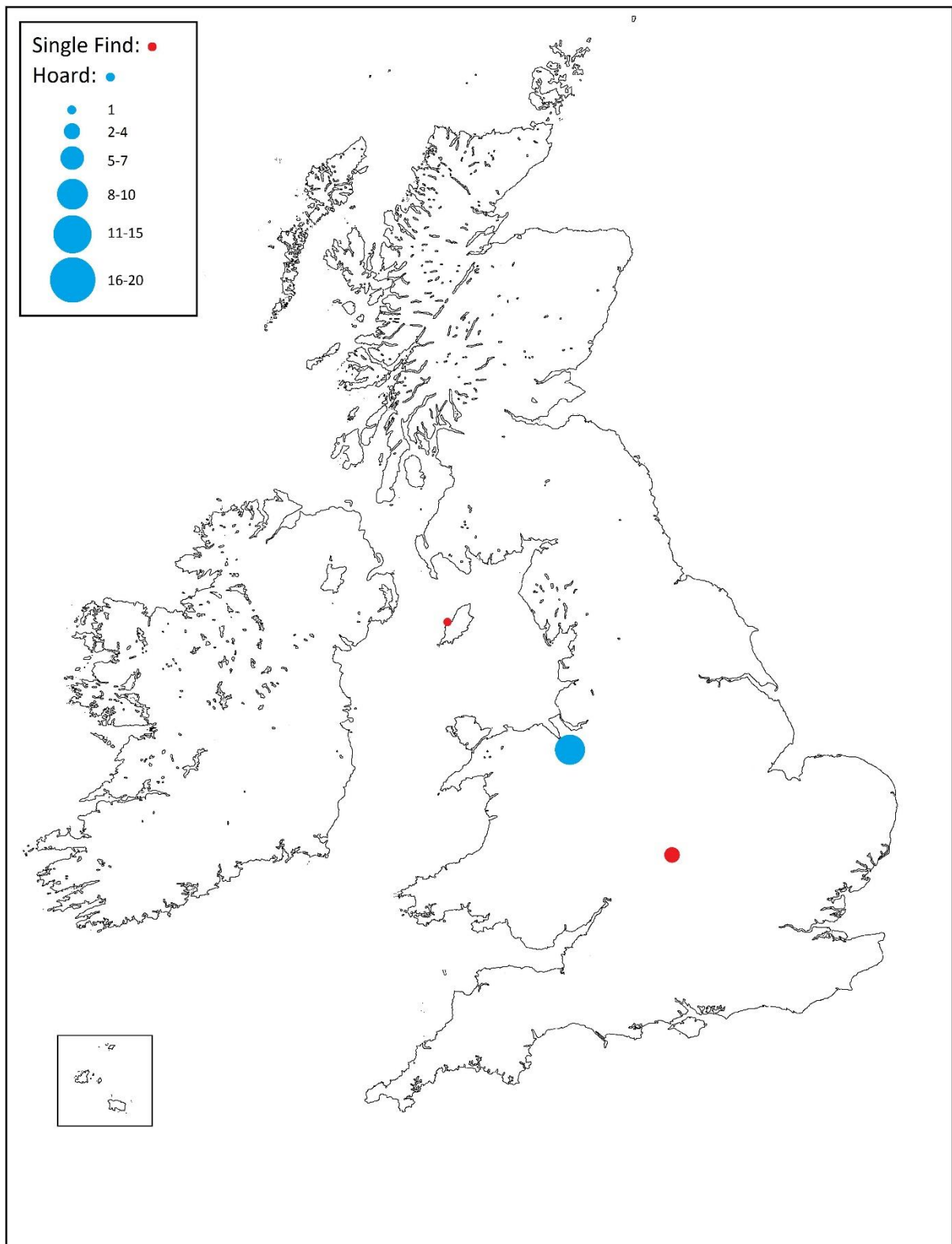
1.2.3: Eadmund, 939-946



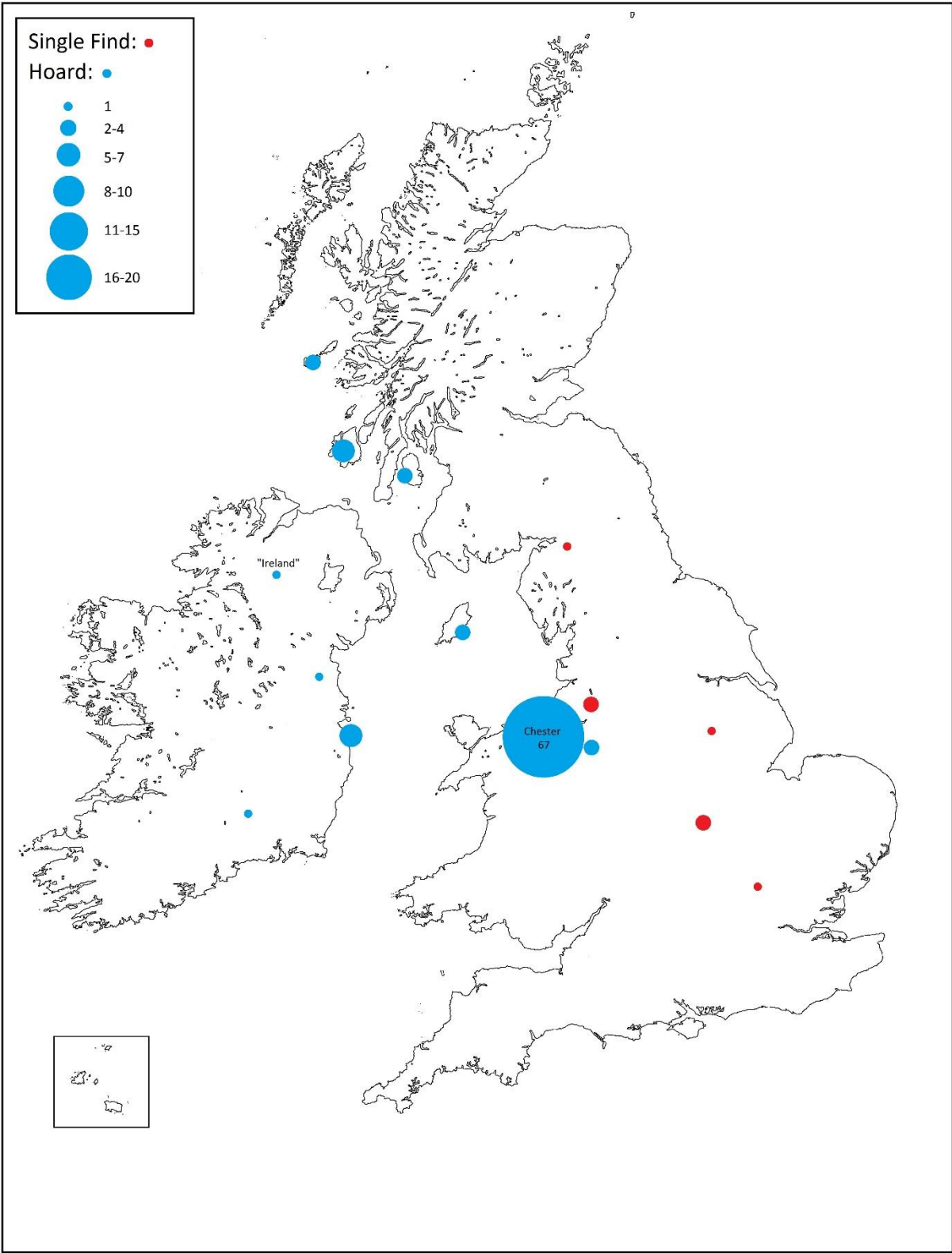
1.2.4: Eadred, 946-955



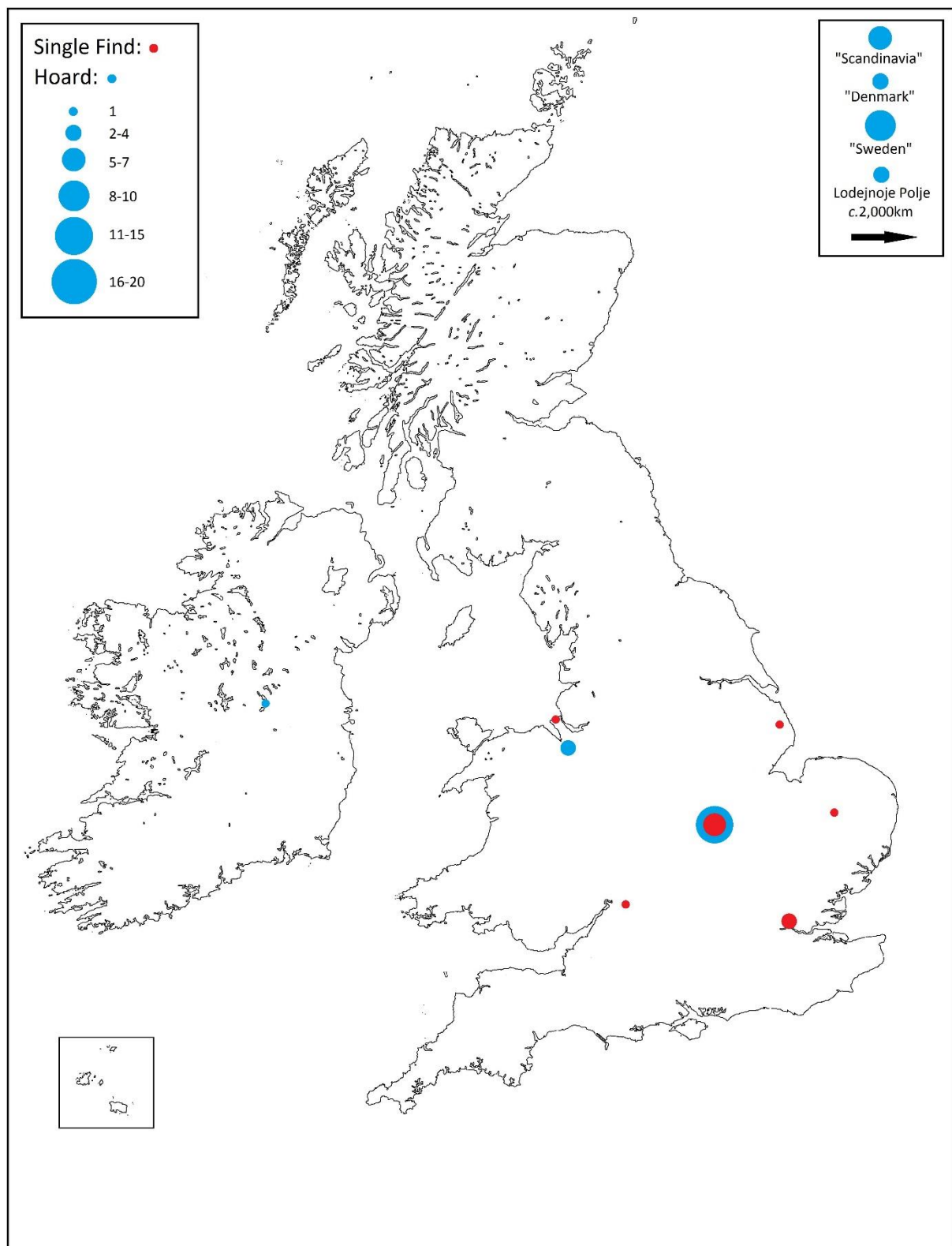
### 1.2.5: Eadwig, 955-959



1.2.6: Eadgar, 959-975



### 1.2.7: Æthelred II, 978-1016



## Bibliography

### Primary Sources:

*Acts of the Privy Council XVII*, London: Historical Manuscripts Commission

Asser, *Life of King Alfred*, in S. Keynes and M. Lapidge (trans. and eds.) (1983), *Alfred the Great: Asser's Life of King Alfred and Other Contemporary Sources*, London: Penguin Classics

Æthelweard, *Chronicon Æthelweardi*, in A. Campbell (trans. and ed.) (1962), *Chronicon Æthelweardi: The Chronicle of Æthelweard*, London: Medieval Texts

Dumville, D.N. (trans. and ed.) (2002), *Annales Cambriae A.D. 682-954*, Cambridge: Cambridge University Press

Fulk, R.D. (trans. and ed.) (2010), *The Beowulf Manuscript: Complete Texts and The Fight at Finnsburg*, London: Harvard University Press

McGurk, P. (trans. and ed.) (1998), *The Chronicle of John of Worcester, Vol. 3: The Annals from 1067-1140 with the Gloucester Interpolations and the Continuation to 1141*, Oxford: Clarendon Press

Sawyer, P.H. (1968), *Anglo-Saxon Charters: An Annotated List and Bibliography*, London: Beekman, revised, Kelly, S.E., *The Electronic Sawyer* (<http://www.esawyer.org.uk>)

Scholz, B.W. and Rogers, B. (trans. and eds.) (1970), *Carolingian Chronicles*, Ann Arbor, MI: University of Michigan Press

Whitelock, D. (ed.) (1961), *The Anglo-Saxon Chronicle*, London: Eyre and Spottiswoode

Whitelock, D. (ed.) (1979), *English Historical Documents Vol.I: c.500-1042*, London: Eyre and Spottiswoode

William of Malmesbury, *De Gestis Pontificum Anglorum Libri Quinque*, N.E.S.A. Hamilton (ed.) (1870), London: Rolls Series

### Artefact Catalogues and Databases:

Fitzwilliam Museum Corpus of Early Medieval Coin Finds (EMC), ([www.fitzmuseum.cam.ac.uk/dept/coins/emc/](http://www.fitzmuseum.cam.ac.uk/dept/coins/emc/)) (last accessed 10/01/2017)



The British Museum Portable Antiquities Scheme, ([finds.org.uk](http://finds.org.uk)) (last accessed 15/02/2017)

*Sylloge of Coins of the British Isles*, now accessible via the EMC database ([www.fitzmuseum.cam.ac.uk/dept/coins/projects/scbi/](http://www.fitzmuseum.cam.ac.uk/dept/coins/projects/scbi/)) (last accessed 25/11/2016)

Grierson, P. (1958), *Sylloge of Coins of the British Isles 1: Fitzwilliam Museum, Cambridge*, London: British Museum Publications

Robertson, A.S. (1961), *Sylloge of Coins of the British Isles 2: Hunterian Museum, Glasgow*, Oxford: Oxford University Press

Galster, G. (1964), *Sylloge of Coins of the British Isles 4: Royal Collection, Copenhagen*, Oxford: Oxford University Press

Pirie, E.J.E. (1964), *Sylloge of Coins of the British Isles 5: Grosvenor Museum, Chester*, Oxford: Oxford University Press

Stevenson, R.B.K. (1966), *Sylloge of Coins of the British Isles 6: National Museum of Antiquities of Scotland, Edinburgh*, Oxford: Oxford University Press

Galster, G. (1966), *Sylloge of Coins of the British Isles 7: Royal Collection, Copenhagen*, Oxford: Oxford University Press

Thompson, J.D.A. (1967), *Sylloge of Coins of the British Isles 9: Ashmolean Museum, Oxford*, Oxford: Oxford University Press

Blunt, C.E. and Dolley, M. (1969), *Sylloge of Coins of the British Isles 11: Reading University and Royal Coin Cabinet, Stockholm Part VI*, Oxford: Oxford University Press

Blunt, C.E., Elmore-Jones, F. and Mack, R.P. (1971), *Sylloge of Coins of the British Isles 16: Norweb Collection*, Oxford: Oxford University Press

Gunstone, A.J.H. (1971), *Sylloge of Coins of the British Isles 17: Ancient British, Anglo-Saxon and Norman Coins in Midlands Museums*, Oxford: Oxford University Press

Mack, R.P. (1973), *Sylloge of Coins of the British Isles 20: The Mack Collection*, Oxford: Oxford University Press

Pirie, E.J.E. (1975), *Sylloge of Coins of the British Isles 21: Yorkshire Collections*, Oxford: Oxford University Press

Gunstone, A.J.H. (1977), *Sylloge of Coins of the British Isles 24: West Country Museums*, Oxford: Oxford University Press



- Talvio, T. (1978), *Sylloge of Coins of the British Isles 25: National Museum, Helsinki*, Oxford: Oxford University Press
- Warhurst, M. (1982), *Sylloge of Coins of the British Isles 29: Merseyside County Museums*, Oxford: Oxford University Press
- Brady, J.D. (1982), *Sylloge of Coins of the British Isles 30: American Collections*, Oxford: Oxford University Press
- Archibald, M.M and Blunt, C.E. (1986), *Sylloge of Coins of the British Isles 34: British Museum Anglo-Saxon Coins V: Athelstan to the Reform of Edgar 924-c.973*, London: British Museum Publications
- Kluge, B. (1987), *Sylloge of Coins of the British Isles 36: The State Museum, Berlin*, Oxford: Oxford University Press
- Mikolajczyk, A. (1987), *Sylloge of Coins of the British Isles 37: Polish Museums*, Oxford: Oxford University Press
- Gunstone, A.J.H. (1992), *Sylloge of Coins of the British Isles 42: South-Eastern Museums*, Oxford: Oxford University Press
- Berga, T. (1996), *Sylloge of Coins of the British Isles 45: Latvian Collections*, Oxford: Oxford University Press
- Booth, J. (1997), *Sylloge of Coins of the British Isles 48: Northern Museums*, Oxford: Oxford University Press
- Potin, V.M. (1999), *Sylloge of Coins of the British Isles 50: Hermitage Museum, St Petersburg*, Oxford: Oxford University Press
- Leimus, I. and Molvõgin, A. (2001), *Sylloge of Coins of the British Isles 51: Estonian Collections, St Petersburg*, Oxford: Oxford University Press
- Lindberger, E. (2006), *Sylloge of Coins of the British Isles 52: Uppsala University Coin Cabinet*, Oxford: Oxford University Press
- Pagan, H. (2012), *Sylloge of Coins of the British Isles 64: Grosvenor Museum, Chester Part II – Anglo-Saxon Coins and Post-Conquest Coins to 1180*, Oxford: Oxford University Press
- Screen, E. (2013), *Sylloge of Coins of the British Isles 65: Norwegian Collections*, Oxford: Oxford University Press

## National and Scheduled Monument, and County Historic Environment Records:

### Cheshire HER:

307: Castle Hill, Wardle Hall

832: Eddisbury Hill burial site

833/1: Kelsborrow Promontory fort on Castle Hill

837/1/2: The Chamber in the Forest (Merrick's Hill)

844/1/0: Roman Road - Chester to Manchester (Route 7a)

844/1/10: Roman Road - South of Eddisbury Hill Road (Chester - Manchester Route 7a)

844/1/3: Roman Road - Nettleford Wood Junction (Chester - Manchester Route 7a)

848/1: Oakmere Promontory Fort

866/1/1: Bronze Age activity at Eddisbury

866/1/2: Early Iron Age settlement at Eddisbury

866/1/3: Iron Age hillfort at Eddisbury

- SCH7299: W.J. Varley Excavations at the Castle Ditch, Eddisbury, 1935-1938
- SCH7297: A. Ferguson Field Survey of Eddisbury Hillfort, 1977
- SCH7305: Royal Commission on the Historical Monuments of England, 1987, Castle Ditch (Eddisbury) hillfort, Archaeological Survey Report (R3560)
- SCH5003: Gifford and Partners, 2006, Old Pale, Delamere, Cheshire Archaeological Watching Brief, R2675 (Client Report)
- SCH4655: Gifford and Partners, 2006, Archaeological Recording at Eddisbury Hillfort, Delamere, Cheshire, R2607 (Client Report)
- SCH6436: Archaeophysica, 2010, Eddisbury Hillfort, Cheshire Geophysical Survey Report (Client Report)
- SCH5260: Oxford Archaeology North, 2007, Habitats and Hillforts of the Cheshire Sandstone Ridge, Cheshire: Archaeological Condition Survey, R3894 (Client Report)

- SCH5259: Oxford Archaeology North, 2008, Habitats and Hillforts of the Cheshire sandstone Ridge: Archaeological Desk-Based Assessment, R3893 (Client Report)
- SCH7285: Cheshire West and Chester Historic Environment Service, 2012, Report on an archaeological evaluation at Eddisbury Hillfort (DRAFT), R3556 (Unpublished Report)
- SCH7327: Mason, R, 2011, Excavations at Merrick's Hill, Eddisbury Hillfort 2011 (Unpublished Report)

867: Post medieval quarrying at Eddisbury

868/1: Early Saxon activity at Eddisbury

868/2: Late Saxon burh site at Eddisbury

866/1/2: Early Iron Age settlement at Eddisbury

1007/2: Promontory fort on Helsby Hill

1554/1/2: Slag heap/possible round barrow on the NE slope of Eddisbury

7412: Early medieval activity at Kelsborrow

#### Shropshire HER:

00369: Panpudding Hill Ringwork and Bailey Castle

- ESA391: 1986 Field observation by English Heritage

00371: Bridgnorth Castle

- ESA394: 1927 field observation by English Heritage,
- ESA395: 1960 field observation by the Ordnance Survey
- ESA396: 1979 field observation by the Ordnance Survey
- ESA397: 1986 field observation by English Heritage
- ESA4962: 1995 evaluation of land between East and West Castle Street by Oxford Archaeological Unit
- ESA7286: 1995 trial trenching at Castle Hill, Bridgnorth by University of Birmingham (Dept of Archaeology)
- ESA4961: 1996 WB on demolition and construction work between East and West Castle Street by Oxford Archaeological Unit
- ESA6102: 2000 Geophysical survey at Bridgnorth by GSB Prospection for Time Team

- ESA7801: 2000 excavations at Bridgnorth Castle and in East Castle Street by Time Team,
- ESA6147: 2007 WB at the Church of St Mary Magdalene, Bridgnorth by Martin Cook
- ESA6480: 2010 site visit and photographic record of Castle Walks, Bridgnorth by Ironbridge Institute
- ESA7683: 2015 WB at 17 East Castle Street, Bridgnorth by SCAS
- SSA20961: Watching brief report: Johns R & Hiller J. 1997. Land at East and West Castle Street, Bridgnorth, Shropshire: archaeological watching brief report. OAU Rep.
- SSA20962: Excavation report: Mudd A. 1995. Land at East and West Castle Street, Bridgnorth, Shropshire: archaeological evaluation. OAU Rep.
- SSA22865: Geophysical survey report: Gater J & Gaffney C. 2000. Geophysical Survey report: Bridgnorth. Geophysical Surveys of Bradford Rep. 2000/109.
- SSA22975: Watching brief report: Cook M. 2007. Watching brief at the Church of St Mary Magdalene, Bridgnorth, Shropshire.

00374: Medieval Town Defences, Bridgnorth

- ESA4900: 1998 evaluation in advance of proposed development of land off Northgate and Whitburn Street by SCCAS
- SSA20965: Watching brief report: Hannaford Hugh R. 1998. A watching brief at Moat Street, Bridgnorth, Shropshire. SCCAS Rep. 140.
- SSA24296: Excavation report: Williams M. (2012), Archaeological Evaluation Report 63A High Street, Bridgnorth. LP Arch Archaeological Rep. LP1384M-AER-v1.0.
- SSA24297: Excavation report: Williams M. (2012), Archaeological watching brief report for land to rear of 63A High Street, Bridgnorth. LP Arch Archaeological Rep. LP1384M-WBR-v1.0.

00408: Possible Burh, Later Town at Quatford

00427: Titterstone Clee Hill Camp and Two Ring Cairns

- ESA6904: 2011-12 DBA and walkover survey of hillforts in Shropshire by Shropshire Council and Herefordshire Council
- ESA463: 1933-1934 Excavation by O'Neil of English Heritage
- FSA936 - SPEAR (Early Saxon to Late Saxon - 600 AD to 899 AD)

00433: Chesterton Walls, Worfield

- ESA6904: 2011-12 DBA and walkover survey of hillforts in Shropshire by Shropshire Council and Herefordshire Council
- 00498: Ringwork and Cultivation Remains 260m West of St Michael's Church, Chirbury
- ESA504: 1953 excavation
  - ESA4724: 1958 Excavation of ringwork at Chirbury by F T Wainwright
  - ESA505: 1976 field observation by Shropshire County Council
  - ESA4714: Marches Uplands Mapping Project 1993-1994 by RCHME
  - ESA5524: 1999-2000 Historic landscape characterisation of Bro Trefaldwyn
- 02570: Chirbury Priory
- ESA5823: 2001 site visit by English Heritage MPP fieldworker
  - ESA5997: 2002 Excavations at Chirbury
  - ESA5528: 2003 Excavations at Chirbury
  - ESA5998: 2004 Excavations at Chirbury
- 03299: Round Barrow On Titterstone Clee
- 05627: Ditch Crossing St Mary's Rectory Grounds, Bridgnorth
- ESA5462: 1991 evaluation of St Mary's Rectory, Bridgnorth by Gifford & Partners Ltd
- 05633: Medieval Churchyard of St Leonard's, Bridgnorth
- 06482: Wroxeter Defences
- 06495: Wroxeter Early Medieval Urban Forum
- 06848: Wroxeter South Road
- 08727: Ditch Crossing Castle Grounds, Bridgnorth
- ESA7801: 2000 excavations at Bridgnorth Castle and in East Castle Street by Time Team
- 13416: St Andrew's Church, Wroxeter
- ESA4758: Watching brief on wall repairs
- Staffordshire HER:
- 00022: Bury Bank Hillfort, Stone
- EST197 - Archaeological excavations at Bury Bank Hillfort in 1859 by C. Lynam.

- EST198 - Archaeological excavations at Bury Bank Hillfort in 1892 by C. Lynam.
- EST290 - A survey of the hillforts of Staffordshire.

00064: Bunbury Hillfort, Alton

00070: Saxon's Lowe, Tittensor

00144: Toot Hill Bowl Barrow, Uttoxeter

01896: Possible site of barrow, Totmonslow

03894: Pire Hill

- SST3922 - Geophysical Survey Report: Mike Ings (Cotswold Archaeological Trust). 1993. North Pirehill Farm, Stone, Staffordshire: Fieldwalking and Geophysical Survey

#### National Monuments Record:

SE 01 NW 13: Beacon Hill Bronze Age Bowl Barrow, Ripponden, Calderdale

SJ 50 NE 10: Wroxeter Roman City

SJ 56 NE 1: Castle Ditch, Delamere

SJ 69 SE 23: Bronze Age Barrow at Warburton Park

SJ 78 SE 8: Medieval Settlement at Tatton, Cheshire

SJ 83 NE 3: Saxons Lowe Potential Barrow Site, Tittensor Chase, Staffs.

SJ 97 SE 10: Bronze Age bowl barrow surviving as an earthwork, Macclesfield Forest

SK 03 NE 3: Bronze Age Bowl Barrow, Toot Hill, Hollington, Staffs.

SK 04 SE 11: Bunbury Hillfort, Alton, Staffs.

SK 04 SE 13: Anglo-Saxon sword and axe found in Alton Towers Park, Alton, Staffs.

SK 04 SE 14: Slain Hollow, battle site c.716, Alton, Staffs.

SK 13 SW 1: Toothill Bronze Age Barrow, Uttoxeter, Staffs.

SO 29 NE 2: Chirbury Priory

SO 47 NE 13: Stanton Lacy Abandoned Medieval Village, Shropshire

SO 79 NE 3: Chesterton Walls Hillfort, Worfield

SO79 NE 5: St Peter's Church, Worfield

SO 79 SW 6: Bridgnorth Castle

SO 79 SW 83: Bridgnorth Medieval Settlement

SS 40 SE 3: Beacons Down, Totleigh, Devon

ST 75 NE 10: Beacon Barrow, Hinton Charterhouse, Somerset

TA 21 SW 3: Toot Hill Possible Bowl Barrow, Healing, Lincs.

TL 26 NE 6: Possible Roman Beacon, Beacon Field, Godmanchester, Cambs.

TL 50 SW 9: "Mill mound" at Toot Hill, Stanford Rivers

TL 81 SE 25: Beacon Hill, Great Totham, Essex

## Secondary Literature

Abels, R.P. (1997), 'English Logistics and Military Administration 871-1066: The Impact of the Viking Wars' in A.N. Jørgensen and B.L. Clausen (eds.), *Military Aspects of Scandinavian Society in a European Perspective, AD 1-1300*, Copenhagen: National Museum of Denmark, 257-265

Abels, R.P. (1998), *Alfred the Great*, London: Longman

Abels, R.P. (2001), 'From Alfred to Harold II: The Military Failure of the Late Anglo-Saxon State' in R.P. Abels and B.S. Bachrach (Eds.), *The Normans and their Adversaries at War: Essays in Memory of C. Warren Hollister*, Woodbridge: The Boydell Press, 15-30

Abels, R.P. (2013), *Alfred the Great: War, Kingship and Culture in Anglo-Saxon England*, Abingdon: Routledge

Astill, G. (2006), 'Community, Identity and the Later Anglo-Saxon Town: The Case of Southern England' in W. Davies, G. Halsall and A. Reynolds (eds.), *People and Space in the Middle Ages, 300-1300*, Turnhout: Brepols

Baker, J. (2013), 'The Language of Anglo-Saxon Defence', in John Baker, Stuart Brookes and Andrew Reynolds (eds.), *Landscapes of Defence in Early Medieval Europe*, Turnhout: Brepols, 65-90

Baker, J. and Brookes, S. (2011), 'From Frontier to Border: The evolution of northern West Saxon territorial delineation in the ninth and tenth centuries', in H. Hamerow (ed.), *Anglo-Saxon Studies in Archaeology and History 17*, Oxford: Oxford University School of Archaeology, 108-123

Baker, J. and Brookes, S. (2013), *Beyond the Burghal Hidage: Anglo-Saxon Civil Defence in the Viking Age*, Leiden: Brill

Baker, J. and Brookes, S. (2014), 'Overseeing the sea: some West Saxon responses to waterborne threats in the South-East' in S. Klein, B. Shipper and S. Lewis-Simpson (Eds.), *The Maritime World of the Anglo-Saxons*, Tempe: ACMRS, 37-58

Baker, J. and Brookes, S. (2015), 'Signalling Intent: Beacons, Lookouts and Military Communications' in M. Clegg Hyer and G. Owen-Crocker (Eds.), *The Material Culture of the Built Environment of Anglo-Saxon England*, Liverpool: Liverpool University Press, 216-234

Baker, N. (2010), *Shrewsbury: an archaeological assessment of an English border town*, Oxford: Oxbow

Barrow, J. (2000), 'Churches, Education and Literacy in Towns, 600-1300', in D.M. Palliser (ed.), *The Cambridge Urban History of Britain I: 600-1450*, Cambridge: Cambridge University Press, 127-52

Baskott, M. (2010), 'Roman Military Signalling between Forts in East Cornwall: Lines of Sight between Nanstallon and Restormel', *Cornish Archaeology* 49, 2-12

Bassett, S. (2007), 'Divide and rule? The military infrastructure of eighth- and ninth-century Mercia', *Early Medieval Europe* 15, 53-85

Bassett, S. (2008), 'The Middle and Late Anglo-Saxon Defences of Western Mercian Towns', in S. Crawford and H. Hamerow (eds.), *Anglo-Saxon Studies in Archaeology and History 15*, Oxford: Oxford University School of Archaeology, 180-240

Bassett, S. (2009), 'Anglo-Saxon Warwick', *Midland History* 34, 123-55

Bassett, S. (2011), 'Anglo-Saxon fortifications in western Mercia', *Midland History* 36, 1-23

Besant, W. (1901), *The Story of King Alfred*, New York: Appleton

Biddle, M. (1976), 'Towns', in David M. Wilson (ed.), *The Archaeology of Anglo-Saxon England*, Cambridge: Methuen, 99-150



- Biddle, M. and Keene, D. (1976), 'The Late Saxon "Burh"', in M. Biddle (ed.), *Winchester in the Early Middle Ages*, Winchester Studies I, Oxford: Oxford University Press, 449-469
- Blackburn, M. (1996), 'Mints, Burhs and the Grately Code, cap.14.2', in D. Hill and A. Rumble (eds.), *The Defence of Wessex: The Burghal Hidage and Anglo-Saxon Fortifications*, Manchester: Manchester University Press, 160-176
- Blackburn, M. (1998), 'The London Mint in the Reign of Alfred', in M. Blackburn and D. Dumville (eds.), *Kings, Currency and Alliances: Southern England in the 9<sup>th</sup> Century*, Woodbridge: The Boydell Press, 105-125
- Blackburn, M. (2003), "'Productive sites" and the pattern of coin loss in England, 600–1180', in T. Pestell and K. Ulmschneider (eds.), *Markets in Early Medieval Europe: Trading and 'Productive' Sites, 650–850*, Macclesfield: Windgather Press, 20–36.
- Blair, J. (2005), *The Church in Anglo-Saxon Society*, Oxford: Oxford University Press
- Blinkhorn, P. (2014), 'No pots please, we're Vikings: Pottery in the Southern Danelaw 850-1000' in L. ten Harkel, and D.M. Hadley, (Eds.) *Everyday Life in Viking-Age Towns: Social Approaches to Towns in England and Ireland, c. 800-1100*, Oxford: Oxbow Books, 157-172
- Blunt, C.E. (1974), 'The Coinage of Athelstan, King of England, 924-939', *British Numismatic Journal* 42, 35-158
- Blunt, C.E. (1981), 'A penny of the English King Athelstan overstruck on a Cologne denier', in T. Fischer and P. Ilisch (eds.), *Lagom: Festschrift für Peter Berghaus zum 60. Geburtstag am 20. November 1979*, Münster: H. Dombrowski, 119-121
- Blunt, C.E. (1982), 'The Cabinet of the Marquess of Ailesbury and the Penny of Hywel Dda', *British Numismatic Journal* 52/11, 117-122
- Blunt, C.E., Stewart, B.H.I H. & Lyons C.S.S. (1989), *Coinage in Tenth-Century England: From Edward the Elder to Edgar's Reform*, London: British Academy/Oxford University Press
- Bond, C.J. (1987), 'Anglo-Saxon and Medieval Urban Defences', in Schofield, J. and Leech, R. (eds.), *Urban Archaeology in Britain*, London: Council for British Archaeology
- Britnell, W.J. and Martin, C.H.R. (2000), *Bro Trefaldwyn Historic Landscape: Historic Landscape Characterization*, CPAT Report 356
- Brooke, J. (1974), *King George III*, London: Panther

- Brooks, N.P. (1964), 'The Unidentified Forts of the Burghal Hidage', *Medieval Archaeology* 8, 74-89
- Brooks, N.P. (1971), 'The Development of Military Obligations in Eighth and Ninth Century England', in P. Clemoes and K. Hughes (eds.), *England Before The Conquest*, Cambridge: Cambridge University Press, 69-85
- Brooks, N.P. (1996), 'The Administrative Background to the Burghal Hidage', in D. Hill and A. Rumble (eds.), *The Defence of Wessex: The Burghal Hidage and Anglo-Saxon Fortifications*, Manchester: Manchester University Press, 128-151
- Brooks, N.P., Gelling, M. and Johnson, D. (1984), 'A new charter of King Edgar', *Anglo-Saxon England* 13, 137-155
- Brookes, S. (2013), 'Mapping Anglo-Saxon Civil Defence', in J. Baker, S. Brookes and A. Reynolds (eds.), *Landscapes of Defence in Early Medieval Europe*, Turnhout: Brepols, 39-63
- Bryant, R. and Heighway, C. M. (2003), 'Excavations at St. Mary de Lode Church, Gloucester, 1978-9', *Transactions of the Bristol and Gloucestershire Archaeological Society* 121, 97-178
- Cameron, K. (1996), *English Place Names*, London: Batsford
- Campbell, J. (1975), 'Observations on English Government from the Tenth to the Twelfth Century', *Transactions of the Royal Historical Society*, 5<sup>th</sup> Series, 25, 39-54
- Campbell, J. (1980), 'The Significance of the Anglo-Saxon State in the Administrative History of Western Europe', in W. Paravicini and K.F. Werner (eds.), *Histoire Comparée de l'Administration (IV<sup>e</sup> – XVIII<sup>e</sup> Siècles)* (Actes du XIV Colloque Historique Franco-Allemand, Tours, 1977: Beihefte der Francia IX, Munich: Artemis, 117-134
- Campbell, J. (1986), 'The Church in Anglo-Saxon Towns', in D. Baker (ed.) (1979), *The Church in Town and Countryside*, *Studies in Church History* 16, 119-135, republished in *Essays in Anglo-Saxon History*, London: Continuum, 139-154
- Campbell, J. (2001), 'What is not known about the reign of Edward the Elder' in N.J. Higham and D.H. Hill (eds.), *Edward the Elder 899-924*, Abingdon: Routledge, 12-24
- Cane, C. (1988), *FR 8.2.3: Artefacts: Medieval Pottery*, Stafford Online Archive [http://ads.ahds.ac.uk/catalogue/archive/stafford\\_eh\\_2009](http://ads.ahds.ac.uk/catalogue/archive/stafford_eh_2009) (last accessed 26/02/2016)
- Carruthers, J. (1853), 'On Coin Hoards Found in Ireland', *Ulster Journal of Archaeology* 1, 164-167

- Carver, M. (1999), 'Exploring, Explaining, Imagining; Anglo-Saxon Archaeology 1998' in C.E. Karkov, (ed.), *The Archaeology of Anglo-Saxon England: Basic Readings*, London: Routledge, 25-52
- Carver, M. (2010), 'Anglo-Saxon Stafford: Archaeological Investigations 1954-2004', English Heritage Field Reports On-line, doi: 10.5284/100000
- Carver, M. (2010), *The Birth of a Borough: An Archaeological Study of Anglo-Saxon Stafford*, Woodbridge: The Boydell Press
- Cathcart King, D.J. (1982), *Castellarium Anglicanum: An Index and Bibliography of the Castles in England, Wales and the Islands*, London: Kraus International
- Chadwick, H.M. (1905), *Studies on Anglo-Saxon Institutions*, Cambridge: Cambridge University Press
- Charles-Edwards, T.M. (2001), 'Wales and Mercia, 613-918' in M.P. Brown and C.A. Farr (eds.), *Mercia: An Anglo-Saxon Kingdom in Europe*, Leicester: Continuum, 89-106
- Charles-Edwards, T.M. (2013), *Wales and the Britons 350-1064*, Oxford: Oxford University Press
- Cheshire West and Chester Historic Environment Service (2012), *Report on an archaeological evaluation at Eddisbury Hillfort (DRAFT)*, Unpublished Report
- Chitty, L.F. (1950), 'Interim notes on subsidiary castle sites west of Shrewsbury with schedule and map' in *Transactions of the Shropshire Archaeological Society* 50, 83-90
- Christie, N., Creighton, O. and Edgeworth, M. (2013), 'Wallingford: Place, Space and Defence', in J. Baker, S. Brookes and A. Reynolds (eds.), *Landscapes of Defence in Early Medieval Europe*, Turnhout: Brepols, 111-127
- Clark, G.T. (1889), 'Contribution towards a complete list of moated mounds or burhs', *The Archaeological Journal* 46, 197-217
- Cocroft, W.D., Everson, P., Jecock, M., Ainsworth, S. and Reid, M. (1991), *RCHME: Staffordshire Hillforts Project*, Swindon: National Monuments Record
- Cocroft W.D., Everson, P., Jecock M and Wilson-North, W.R. (1989) 'Castle ditch hillfort, Eddisbury, Cheshire, reconsidered: the excavations of 1935-8 in the light of recent field survey' in *From Cornwall to Caithness: Some Aspects of British Field Archaeology. Papers presented to Norman V. Quinnell* British Archaeological Reports British Series 209, 129-173)

- Codrington, T. (1905), *Roman Roads in Britain*, London: Society for Promoting Christian Knowledge
- Cool, H.E.M. (2013), *Contextualising Metal-Detected Discoveries: Staffordshire Anglo-Saxon Hoard*, Nottingham: Barbican Research Associates
- Corcos, N. (2002), *The Affinities and Antecedents of Medieval Settlement: Topographical Perspectives from Three of the Somerset Hundreds*, Oxford: Archaeopress
- Cox, D.C., Edwards, J.R., Hill, R.C., Kettle, A.J., Perren, R., Rowley, T. and Stamper, P.A. (1989), *A History of the County of Shropshire: Volume 4 – Agriculture*, London: Victoria County History
- Coxe, H.E. (ed.) (1841), *Wendover's Flores Historiarum Vol.I*, London: Sumptibus Societatis
- Crawford, O.G.S. (1953), *Archaeology in the Field*, London: J.M. Dent & Sons
- Davies, G. and Brown, A. (2013), *A Desk-Based Heritage Assessment of the proposed Great Oak Surface Mine Scheme, near Bignall, Staffordshire*, Bakewell: Archaeological Research Services Ltd.
- Davies, R.R. (1987), *The Age of Conquest: Wales 1063-1415*, Oxford: Oxford University Press
- Davies, W. (1982), *Wales in the Early Middle Ages*, Leicester, Leicester University Press
- Dhénin, M. and Leclercq, P. (1982), 'The coins of Quentovic from the Cuerdale hoard in the museum of Boulogne-sur-Mer', *British Numismatic Journal* 52, 104–107
- Dodgson, J.McN. (1971), *The Place Names of Cheshire Part III*, Cambridge: The English Place-Name Society
- Dodgson, J.McN. (1981), *The Place Names of Cheshire Part V (I: ii): The Elements of Cheshire Place-Names*, Cambridge: The English Place-Name Society
- Dolley, M. (1970), *Anglo-Saxon Pennies*, London: Trustees of the British Museum
- Dolley, R.H.M. and Metcalf, D.M. (1961), 'The Reform of the English Coinage under Edgar', in R.H.M. Dolley (ed.), *Anglo-Saxon Coins*, London: Methuen, 136-168

Dorling, P. (2014), *A Conservation Management Plan for "Leintwardine Roman Station of Bravinium" (Branogenium), Leintwardine, Herefordshire*, Herefordshire Archaeology Report No. 341, Hereford: Herefordshire Archaeology

Downham, C. (2008), 'The Vikings in England', in Brink, S. and Price, N. (eds.), *The Viking World*, London: Routledge

Draper, S. (2008), 'The Significance of Old English *Burh* in Anglo-Saxon England', in S. Crawford and H. Hamerow (eds.), *Anglo-Saxon Studies in Archaeology and History 15*, Oxford: Oxford University School of Archaeology, 240-253

Ekwall, E. (1985), *The Concise Dictionary of English Place-Names*, Oxford: Oxford University Press

English Heritage (2001), Scheduled Monument Notification (Revision, 09/05/2001), MN 105511

Erdswick, S. (1844), *A Survey of Staffordshire*, London: JB Nichols and Son

Evans, A.K.B. (1970): 'Colleges: Stafford, St Mary' in M W. Greenslade and R. B. Pugh (eds.), *A History of the County of Stafford: Volume 3*, London: Victoria County History, 303-330

Eyton, R.W. (1854), *The Antiquities of Shropshire*, London: John Russell Smith

Ferguson, A. (1977), *Field Survey of Eddisbury Hillfort*, (Unpublished)

Foot, S. (2011), *Æthelstan: The First King of England*, New Haven, CT: Yale University Press

Ford, D.A. (1999), 'A Late Saxon Pottery Industry in Staffordshire: A Review', *Medieval Ceramics* 22-23, 11-36

Forester, T. (ed. and trans.) (1854), *The Chronicle of Florence of Worcester*, London: Henry G. Bohn

Garipzanov, I. (2008), *The Symbolic Language of Authority in the Carolingian World (c.751–877)*, Leiden: Brill

Garlan, Y. (1975), *War in the Ancient World: A Social History*, London: Chatto and Windus

Garner, D. (2012), *Hillforts of the Cheshire Sandstone Ridge*, Chester: Cheshire West and Cheshire Council

- Gelling, M. (1990), *The Place-names of Shropshire I*, Cambridge: The English Place-Name Society
- Gelling, M. (1997), *Signposts to the Past: Place-names and the History of England*, Chichester: Phillimore
- Gifford and Partners Ltd. (1991), 'St Mary's Rectory', *West Midlands Archaeology* 34, 34
- Gillingham, J. (1989), "'The most precious jewel in the English Crown": Levels of *Danegeld* and *Heregeld* in the Early Eleventh Century', *English Historical Review* 104, 373-384
- Gillingham, J. (1990), 'Chronicles and Coins as Evidence for Levels of Tribute and Taxation in Late Tenth- and Early Eleventh-Century England', *English Historical Review* 105, 939-950
- Gjerset, K. (1927), *History of the Norwegian People*, New York: MacMillan
- Gould, J. (1968), 'The Saxon Defences', *Transactions of the South Staffordshire Archaeological and Historical Society* 9, 17-29
- Gower, G. (2002), 'A Suggested Anglo-Saxon Signalling System between Chichester and London', *London Archaeologist* 10/3, 59-63
- Green, J.A. (1981), 'The Last Century of *Danegeld*', *English Historical Review* 96, 241-258
- Griffiths, D. (2009), 'The Archaeological Background' in Graham-Campbell, J.A. and Philpott, R.A. (eds.), *Vikings in the North-West*, Liverpool: Liverpool University Press, 13-23
- Hadley, D.M. (1997), "'And they proceeded to plough and to support themselves": The Scandinavian Settlement of England', *Anglo-Norman Studies* 19, 69-96
- Hadley, D.M. (2000), 'Hamlet and the Princes of Denmark': Lordship in the Danelaw, c.860-954' in D.M. Hadley and J.D. Richards (eds.), *Cultures in Contact: Scandinavian Settlement in England in the Ninth and Tenth Centuries*, Turnhout: Brepols, 107-132
- Hartshorne, C.H. (1841), *Salopia Antiqua: Or, an Enquiry from Personal Survey into the 'Druidical' Military and Other Early Remains in Shropshire and the North Welsh Borders: with Observations Upon the Names of Places, and a Glossary of Words used in the County of Salop*, London: J.W. Parker

- Handler, S. (1971), 'Architecture on the Roman Coins of Alexandria', *American Journal of Archaeology* 75/1, 57-74
- Hannaford, H.R. (1998), *A Watching Brief at Moat Street, Bridgnorth, Shropshire* (SCCAS Rep. 140), Shrewsbury: Shropshire County Council Archaeology Service
- Hannaford, H.R. (1998), *An Archaeological Evaluation at Northgate/ Whitburn Street, Bridgnorth, Shropshire* (SCCAS Rep. 148), Shrewsbury: Shropshire County Council Archaeology Service
- Hannaford, H.R. (2000), *An Archaeological Evaluation at 62/63 High Street, Bridgnorth, Shropshire* (SCCAS Rep. 181), Shrewsbury: Shropshire County Council Archaeology Service
- Harris, B.E. (1987), *The Victoria History of the County of Chester, Vol. 1*, Oxford: Oxford University Press
- Haslam, J. (2006), 'King Alfred and the Vikings: Strategies and Tactics 876-886 AD', in S. Semple (ed.), *Anglo-Saxon Studies in Archaeology and History* 13, Oxford: Oxford University School of Archaeology, 122-154
- Haslam, J. (2011), 'King Alfred, Mercia and London, 874-86: A reassessment', in H. Hamerow (ed.), *Anglo-Saxon Studies in Archaeology and History* 17, Oxford: Oxford University School of Archaeology, 124-150
- Heighway, C.M. (1972), *The Erosion of History: Archaeology and Planning in Towns*, London, Council for British Archaeology
- Higham, N.J. (2001), 'Edward the Elder's reputation' in N.J. Higham and D.H. Hill (eds.), *Edward the Elder 899-924*, Abingdon: Routledge, 1-11
- Higham, N.J. (2014), 'The Late Anglo-Saxon Landscape of Western Cheshire: Open Field, Ploughs and the Manor within the Dykes' in G.R. Owen-Crocker and S.D. Thompson (eds.), *Towns & Topography: Essays in Memory of David Hill*, Oxford: Oxbow Books, 132-142
- Hill, D. (1982), *An Atlas of Anglo-Saxon England*, Oxford: Blackwell
- Hill, D. (1996), 'The Development of Burghal Hidage Studies: a bibliographical review', in D. Hill and A. Rumble (eds.), *The Defence of Wessex: The Burghal Hidage and Anglo-Saxon Fortifications*, Manchester: Manchester University Press, 4-14

- Hill, D. (2000), 'Athelstan's Urban Reforms', in D. Griffiths (ed.), *Anglo-Saxon Studies in Archaeology and History* 11, Oxford: Oxford University School of Archaeology, 173-186
- Hill, D. (2003), 'The Origins of Alfred's Urban Policies' in Reuter, T. (ed.), *Alfred the Great: Papers from the Eleventh Centenary Conferences*, Aldershot: Ashgate, 219-233
- Hill, D. (2011), 'Prelude: Agriculture Through the Year', in M. Clegg Hyer and G.R. Owen-Crocker (eds.), *The Material Culture of Daily Living in the Anglo-Saxon World*, Exeter: Liverpool University Press, 9-22
- Hill, D. and Sharp, S. (1997), 'An Anglo-Saxon Beacon System' in Rumble, A. and Mills, D. (eds.), *Names, Places and People: An Onomastic Miscellany in Memory of John McNeal Dodgson*, Stamford: Paul Watkins, 157-165
- Hinton, D.A. (1996), 'The Fortifications and their Shires', in D. Hill and A. Rumble (eds.), *The Defence of Wessex: The Burghal Hidage and Anglo-Saxon Fortifications*, Manchester: Manchester University Press, 151-160
- Hinton, D.A. (2006), *Gold and Gilt, Pots and Pins*. Oxford: Oxford University Press
- Hislop, M., Kincey, M. and Williams, G. (2011), *Tutbury: 'A Castle Firmly Built': Archaeological and Historical Investigations at Tutbury Castle, Staffordshire*, Oxford: Archaeopress
- Hodges, R. (1991), *Wall-to-Wall History: The Story of Roystone Grange*, London: Duckworth
- Hooke, D. (1988), 'Early forms of open-field agriculture in England', *Geografiska Annaler* 70, 113-131
- Hooke, D. (1998), 'Medieval Forests and Parks in Southern and Central England' in C. Watkins (ed.), *European Woods and Forests: Studies in Cultural History*, New York: CAB International, 19-32
- Hooke, D. (2001), 'Mercia: Landscape and Environment' in M.P. Brown and C.A. Farr (eds.), *Mercia: An Anglo-Saxon Kingdom in Europe*, Leicester, Leicester University Press, 160-172
- Horovitz, D. (2008), 'A tale of two bridges: Cwatsbrycge and Bridgnorth revisited', *Transactions of the Shropshire Archaeological and Historical Society* 83, 1-17
- Hough, P.R. (1982), 'CAB' in *Excavation Reports and Sites Observed (1982)*, Chester: English Heritage, 22-30



- Houghton, A.W.J. (1960), 'The Roman Road from Greensforge through the Central Welsh Marches', *Transactions of the Shropshire Archaeological Society* 61, 233-243
- Hughes, T. (1873), *Life and Times of Alfred the Great*, London: A.H. Redford
- Jayakumar, S. (2008), 'Eadwig and Edgar: Politics, Propaganda, Faction' in D. Scragg (ed.), *Edgar, King of the English, 959-975*, Woodbridge: The Boydell Press, 83-103
- Johns, R. and Hiller, J. (1997), *Land at East and West Castle Street, Bridgnorth, Shropshire: archaeological watching brief report*, Oxford: Oxford Archaeology Unit
- Kelleher, S. (2006), *Tutbury Mill, Rocester: Archaeological Desk-Based and Historic Buildings Assessment*, Birmingham: Birmingham Archaeology
- Kelsey, R. (1852), *Alfred of Wessex*, Battle: F.W. Ticehurst
- Keynes, S. (1998), 'Alfred and the Mercians' in M. Blackburn and D. Dumville (eds.), *Kings, Currency and Alliances: Southern England in the 9th Century*, Woodbridge: Boydell and Brewer, 1-47
- Keynes, S. and Lapidge, M. (trans. and eds.), (2004), *Alfred the Great: Asser's Life of King Alfred and Other Contemporary Sources*, London: Penguin Classics
- Kincey, M. (2011), 'The Park Pale Earthworks' in Hislop, M., Kincey, M. and Williams, G. (2011), *Tutbury: 'A Castle Firmly Built': Archaeological and Historical Investigations at Tutbury Castle, Staffordshire*, Oxford: Archaeopress, 38-61
- Kitchen, F. (1986), 'The Ghastly War-Flame: Fire Beacons in Sussex Until the Mid-17<sup>th</sup> Century', *Sussex Archaeological Collections* 124, 179-191
- King, D. (1656), *The Vale Royal of England*, Chester: Daniel King
- Lambarde, W. (1576), *A Perambulation of Kent*, London: Ralphe Newberie
- Latham, R.E. (1965), *Revised Medieval Latin Word-List from British and Irish Sources*, London: Oxford University Press
- Lavelle, R. (2003), *Fortifications in Wessex c.800-1066*, Oxford: Osprey
- Lavelle, R. (2007), *Royal Estates in Anglo-Saxon Wessex: Land, Politics and Family Strategies*, Oxford: British Archaeological Reports
- Lavelle, R. (2010a), *Alfred's Wars: Sources and Interpretations of Anglo-Saxon Warfare in the Viking Age*, Woodbridge: The Boydell Press

- Lavelle, R. (2010b), 'Geographies of Power in the Anglo-Saxon Chronicle: The Royal Estates of Wessex' in A.D. Jorgenson (ed.), *Reading the Anglo-Saxon Chronicle: Language, Literature, History*, Turnhout: Brepols
- Lavelle R. (2016), 'Law, Death and Peacemaking in the 'Second Viking Age': An Ealdorman, his King and some 'Danes' in Wessex' in R. Lavelle and S. Roffey (eds.), *Danes in Wessex: The Scandinavian Impact on Southern England, c.800-1100*, Oxford: Oxbow Books
- Lawson, M.K. (1984), 'The Collection of *Danegeld* and *Heregeld* in the Reigns of Æthelred II and Cnut,' *English Historical Review* 99, 721-738
- Lawson, M.K. (1989), "'Those Stories Look True": Levels of Taxation in the Reigns of Æthelred II and Cnut,' *English Historical Review* 104, 385-406
- Lawson, M.K. (1990), '*Danegeld* and *Heregeld* Once More', *English Historical Review* 105, 951-961
- Leahy, K. and Bland, R. (2012), *The Staffordshire Hoard*, London: The British Museum Press
- Lewis, C.P. and Thacker, A.T. (2003), *A History of the County of Chester Volume 5 Part 1: The City of Chester*, Woodbridge: The Boydell Press.
- Lewis, T. (1913), *A Glossary of Mediaeval Welsh Law, Based Upon the Black Book of Chirk*, Manchester: Manchester University Press
- Liebermann, F. (ed). (1903), *Die Gesetze der Angelsachsen*, Vol. I, Halle: Max Niemeyer
- Lobel, M.D. and Carus-Wilson, E.M. (1975), 'Bristol' in M.D. Lobel (ed.), *The Atlas of Historic Towns*, Vol.2, London: The Scholar Press, 1-26
- Loyn, H.R. (1961), 'Boroughs and Mints A.D. 900-1066', in R.H.M. Dolley (ed.), *Anglo-Saxon Coins*, London: Methuen, 122-135
- Loyn, H.R. and Percival, J. (eds.) (1975), *The Reign of Charlemagne: Documents on Carolingian Government and Administration*, London: Edward Arnold
- Lyon, C.S.S. (2001), 'The Coinage of Edward the Elder', in N. Higham and D. Hill (eds.), *Edward the Elder. 899-924*, London: Routledge, 67-78

- Lund, N. (1981), 'The Settlers: Where do we get them from – and do we need them?' in H. Bekker-Nielsen, P. Foote and O. Olsen (eds.), *Proceedings of the Eighth Viking Congress*, Odense: University Press, 147-171
- MacGregor, A. (1994), 'A Pair of Late Saxon Strap-Ends from Ipsden Heath, Oxfordshire', *Journal of the British Archaeological Association* 147, 122-127
- Maitland, F.W. (1897), *Domesday Book and Beyond*, Cambridge: Cambridge University Press
- Margeson, S. (1997), *The Vikings in Norfolk*, Norwich: Norfolk Museums Service
- Mason, J.F.A. and Barker, P.A. (1964), 'The Norman Castle at Quatford', *Transactions of the Shropshire Archaeological and Historical Society* 57, 37-62
- Mason, R. (2011), *Excavations at Merrick's Hill, Eddisbury Hillfort 2011* (Unpublished Report), Liverpool: Liverpool University Press
- McCarthy, M.R. and Brooks, C.M. (1988), *Medieval Pottery in Britain, AD 900-1600*, Leicester: Leicester University Press
- Metcalf, D.M. (1987), 'A topographical commentary on the coin finds from ninth-century Northumbria (c. 780 - c. 870)' in D.M. Metcalf (ed.), *Coinage in Ninth-Century Northumbria*, 10th Oxford Symposium on Coinage and Monetary History: Oxford, British Archaeology Reports Publishing, 361-82
- Metcalf, D.M. (1992), 'The Rome (Forum) Hoard of 1883', *British Numismatic Journal* 62, 63–96
- Molyneaux, G. (2015), *The Formation of the English Kingdom in the Tenth Century*, Oxford: Oxford University Press
- Mudd, A. (1995), *Land at East and West Castle Street, Bridgnorth, Shropshire: archaeological evaluation*, Oxford: Oxford Archaeology Unit
- Naismith, R. (2013a), 'The English Monetary Economy, c.973-1100: The Contribution of Single-Finds', *Economic History Review* 66, 198-225
- Naismith, R. (2013b), 'London and its Mint, c.880-1066: A Preliminary Survey', *British Numismatic Journal* 83, 44-74
- Naismith, R. (2013c), *Money and Power in Anglo-Saxon England: The Southern English Kingdoms 757-865*, Cambridge: Cambridge University Press

- Naismith, R. (2014), 'Prelude to Reform: Tenth-Century English Coinage in Perspective', in M. Allen, R. Naismith and E. Screen (eds.), *Early Medieval Monetary History: Studies in Memory of Mark Blackburn*, Aldershot: Ashgate, 39-85
- North, J.J. (1963), *English Hammered Coinage, Vol. I: Early Anglo-Saxon – Henry III. c.650-1272*, London: Spink & Son
- Oakden, J.P. (1984), *The Place-Names of Staffordshire: Part I – Cuttlestone Hundred*, Cambridge: English Place-Name Society
- Owen-Crocker, G. R. (1986), *Dress in Anglo-Saxon England*, Manchester: Manchester University Press
- Page, W. (1908), *The Victoria History of the County of Stafford I*, London: Archibald Constable & Co.
- Parker, J. (2007), *England's Darling: The Victorian Cult of Alfred the Great*, Manchester: Manchester University Press
- Pelteret, D.A.E. (2010), 'The Role of Rivers and Coastlines in Shaping Early English History', *Haskins Society Journal* 21, 21-46
- Postan, M.M. (1973), *Essays on Medieval Agriculture and General Problems of the Medieval Economy*, Cambridge: Cambridge University Press
- Proudfoot, E. and Aliaga-Kelly, C. (1996), 'Towards an Interpretation of Anomalous Finds and Place-Names of Anglian Origin in North and East Scotland' in D. Griffiths (ed.) *Anglo-Saxon Studies in Archaeology and History* 9, Oxford: Oxford University School of Archaeology, 1-15
- Radford, C.A.R. (1970), 'The Later Pre-Conquest Boroughs and their Defences', *Medieval Archaeology* 14, 83-103
- Rahtz, P. (1977), 'The archaeology of West Mercian towns', in A. Dornier (ed.), *Mercian Studies*, Leicester: Leicester University Press, 107-130
- Rahtz, P. and Meeson, R. (1992), *An Anglo-Saxon Watermill at Tamworth: Excavations in the Bolebridge Street area of Tamworth, Staffordshire in 1971 and 1978*, London: Council for British Archaeology
- Reynolds, A. (2001), 'Avebury: a late Anglo-Saxon *burh*?', *Antiquity* 75, 29-30

- Reynolds, A. (2013), 'Correlates for Anglo-Saxon Military Activity in Perspective', in J. Baker, S. Brookes and A. Reynolds (eds.), *Landscapes of Defence in Early Medieval Europe*, Turnhout: Brepols, 1-38
- Richards, J.D. (1999), 'What's so special about 'productive sites'? Middle Saxon settlements in Northumbria in T. Dickinson and D. Griffiths (eds.), *Anglo-Saxon Studies in Archaeology and History* 10, Oxford: Oxford University School of Archaeology, 71-80
- Richardson, C. (1993), *The Borre Style in the British Isles and Ireland: A Reassessment*, Unpublished MLitt Thesis, Newcastle University
- Roach, L. (2016), *Æthelred The Unready*, New Haven: Yale University Press
- Roeder, G. (1906), 'AO/62/138/1', *The Lancashire and Cheshire Antiquity Society* 24, 116-117
- Rollason, D. (1989), *Saints and Relics in Anglo-Saxon England*, Oxford: Wiley-Blackwell
- Rowley, R.T. (1972), *The Shropshire Landscape*, London: Hodder and Stoughton
- Rumble, A.R. (1996a), 'An edition and translation of the Burghal Hidage, together with Recension C of the Tribal Hidage', in D. Hill and A. Rumble (eds.), *The Defence of Wessex: The Burghal Hidage and Anglo-Saxon Fortifications*, Manchester: Manchester University Press, 14-35
- Rumble, A.R. (1996b), 'The Burghal Hidage as a Document: Diplomatic Sub-Sections', in David Hill and Alexander Rumble (eds.), *The Defence of Wessex: The Burghal Hidage and Anglo-Saxon Fortifications*, Manchester: Manchester University Press, 69-74
- Russell, P. (1955), 'Fire Beacons in Devon', *Report and Transactions of the Devonshire Association* 87, 250-302
- Schofield, J and Palliser, D. (eds.) (1981), *Recent Archaeological Research in English Towns*, London: Council for British Archaeology
- Shaw, M. and Clark, J. (2003), *Cheshire Historic Towns Survey: Eddisbury Archaeological Assessment*, Chester: Cheshire County Council and English Heritage
- Smart, V. (1986), 'Scandinavians, Celts and Germans in Anglo-Saxon England: the Evidence of Moneyers' Names', in M. Blackburn (ed.), *Anglo-Saxon Monetary History: Essays in Memory of Michael Dolley*, Leicester: Leicester University Press, 171-184

- Smith, A.H. (1956), *English Place-Name Elements*, Vol. I, Cambridge: Cambridge University Press
- Spelman, J. (1678), *Aelfredi Magni, Anglorum Regis invictissimi vita tribus libris comprehensa*, Oxford: Thomas Hearne
- Stafford, P. (1985), *The East Midlands in the Early Middle Ages*, Leicester: Leicester University Press
- Stafford, P. (1980), 'The "Farm of One Night" and the Organization of King Edward's Estates in *Domesday*', *The Economic History Review* 33/4, 491-502
- Stafford, P. (2008), 'The Annals of Æthelflæd' in J. Barrow and A. Wareham (Eds.), *Myth, Rulership, Church and Charters: Essays in Honour of Nicholas Brooks*, Aldershot: Ashgate, 101-116
- Stancliffe, C. and Cambridge, E. (eds.)(1995), *Oswald: Northumbrian King to European Saint*, Donington: Paul Watkins Publishing
- Starkey, H.F. (1990), *Old Runcorn*, Halton: Halton Borough Council
- Stenton, F. (1933), 'Medahamstede and its Colonies', in E. Edwards (ed.), *Historical Essays in Honour of James Tait*, Manchester, Printed for the Subscribers
- Stenton, F. (1970), 'The Place of Women in Anglo-Saxon Society', in D. Stenton (ed.), *Preparatory to Anglo-Saxon England*, Oxford: Oxford University Press, 314-324
- Stenton, F. (1971), *Anglo-Saxon England (Third Edition)*, Oxford: Oxford University Press
- Styles, D. (1970), 'Colleges: Penkridge, St Michael' in M W. Greenslade and R. B. Pugh (eds.), *A History of the County of Stafford: Volume 3*, London: Victoria County History, 298-303
- Tait, J. (ed.) (1917), *The Chartulary or Register of the Abbey of St. Werburgh, Chester, Vol. 1*, Manchester: The Cheltham Society
- Thacker, A. (1985), 'Kings, Saints, and Monasteries in Pre-Viking Mercia', *Midland History* 10, 1-25
- Thomas, G. (2000), *A Survey of Late Anglo-Saxon and Viking-Age Strap-Ends from Britain*, London: University College London Institute of Archaeology
- Thomas, G. (2003), *Late Anglo-Saxon and Viking-age strap-ends 750-1100. Part 1*, London: Finds Research Group 700-1700

- Thomas, G. (2004), *Late Anglo-Saxon and Viking-age strap-ends 750-1100. Part 2*, London: Finds Research Group 700-1700
- Thompson, J.D.A. (1956), *Inventory of British Coin Hoards: A.D. 600-1500*, Oxford: Royal Numismatic Society
- Thomson, G.S. (ed.) (1926), *The Twysden Lieutenancy Papers, 1583-1668*, Ashford: Kent Records Society
- Timby, J. (1988), 'The Middle Saxon Pottery', in P. Andrews (Ed.), *The Coins and Pottery from Hamwic*, Southampton: Southampton City Museums, 73-122
- Tringham, N.J. (2007), *The Victoria History of the County of Stafford X*, Woodbridge: Boydell and Brewer
- Turner, H.L. (1970), *Town Defences in England and Wales*, London: John Baker
- Turner, S. (1805), *The History of the Anglo-Saxons*, London: Longman, Hurst, Rees, Orme and Brown
- Underwood, R. (1999), *Anglo-Saxon Weapons and Warfare*, Stroud: The History Press
- Varley, W.J. (1937), *Eddisbury and the Castle Ditch*, Chester: Lyceum Press
- Varley, W.J. (1950), 'Excavations at the Castle Ditch, Eddisbury, 1935-1938', *Transactions of the Historic Society of Lancashire and Cheshire* 102, 1-68
- Vince, A. (1985) 'Part 2: The Ceramic Finds' in R. Shoesmith (ed.), *Hereford City Excavations: Volume 3. The Finds*, CBA Research Report 56, London: The Council for British Archaeology, 34-82
- Vince, A. (2004), West Midlands Post-Roman Research Agenda: Ceramics, West Midlands Regional Research Framework for Archaeology Seminar 4, [www.birmingham.ac.uk/documents/college-artslaw/caha/wmrrfa/4/alanvince.doc](http://www.birmingham.ac.uk/documents/college-artslaw/caha/wmrrfa/4/alanvince.doc) (last accessed 11/03/2016)
- Vince, A. and Schofield, J. (1994), *Medieval Towns: The Archaeology of British Towns in Their European Setting*, London: Equinox
- Wade-Evans (1909), *Welsh Medieval Law*, Oxford: The Clarendon Press
- Wainwright, F.T. (1959), 'Æthelflæd: Lady of the Mercians' in P. Clemoes (ed.), *The Anglo-Saxons: studies in some aspects of their history and culture, presented to Bruce Dickins*, London: Bowes & Bowes, 1959, 53-69

- Wainwright, F.T. (1960), 'The Chirbury excavation (1958)' *Shropshire Archaeological Society newsletter* 10, 1-2
- Ward, P. (1779), 'Observations on the Antiquity and Use of Beacons', *Archaeologia* I, 1-7
- Wardle, C. (2002), 'Roman Staffordshire - the Five Towns and Beyond', *West Midlands Regional Research Framework for Archaeology, Seminar 3*
- Warnicke, R.M. (1973), *William Lambarde: Elizabethan Antiquary 1536-1601*, London: Phillimore & Co.
- Watkins-Pitchford, D.W. (1938), 'Collections for a History of Bridgnorth, Salop: a MS by William Hardwicke', *Transactions of the Shropshire Archaeological and Historical Association* 49, 189-216
- Webster, L. E. and Backhouse, J. (eds.) (1991), *The Making of England: Anglo-Saxon Art and Culture AD 600-900*, London: British Museum Press
- Webster, T. (2006), *Archaeological Recording at Eddisbury Hillfort, Delamere, Cheshire*, Chester: Gifford & Partners
- Whitelock, D. (ed.) (1961), *The Anglo-Saxon Chronicle*, London: Eyre and Spottiswoode
- Williams, D. (1997), *Late Saxon Stirrup-strap Mounts: A Classification and Catalogue*, York: Council for British Archaeology
- Williams, G. (2001), 'Military Institutions and Royal Power', in M.P. Brown and C.A. Farr (eds.), *Mercia: An Anglo-Saxon Kingdom in Europe*, Leicester, Leicester University Press, 295-309
- Williams, G. (2002), 'Ship Levies in the Viking Age: The Methodology of Studying Military Institutions in a Semi-Historical Society' in A. Nørgård-Jørgensen (ed.), *Maritime Warfare in Northern Europe: Technology, Organisation, Logistics and Administration, 500BC-1500AD*, Copenhagen: Publications of the National Museum, 293-308
- Williams, G. (2013), 'Military and Non-military Functions of the Anglo-Saxon Burh, c.878-978', in J. Baker, Stuart Brookes and Andrew Reynolds (eds.), *Landscapes of Defence in Early Medieval Europe*, Turnhout: Brepols, 129-163
- Williams, G. (2016), 'Civil Defence or Royal Powerbase? Military and Non-Military Functions of the Late Anglo-Saxon Burh' in J. Baker, S. Brookes, D. Parsons and A.



Reynolds (eds.), *Landscapes of Defence in the Viking Age: Anglo-Saxon England and Comparative Perspectives*: Turnhout: Brepols

Williams, G. and Naylor, J. (2017), *King Alfred's Coins: The Watlington Viking Hoard*, Oxford: Ashmolean Museum

Williams, M. (2012), *Archaeological Evaluation Report 63A High Street, Bridgnorth* (LP Arch Archaeological Rep. LP1384M-AER-v1.0), Worthing: LP Archaeology

Williams, M. (2012), *Archaeological watching brief report for land to rear of 63A High Street, Bridgnorth* (LP Arch Archaeological Rep. LP1384M-WBR-v1.0), Worthing: LP Archaeology

Willis, S. and Holliss, B.R. (1989), *Military Airfields in the British Isles, 1939-1945*, Newport Pagnell, Enthusiast Publications

Wilson, D.M. (1964), *Anglo-Saxon Ornamental Metalwork, 700-1100, in the British Museum, Catalogue of the Antiquities of the Later Saxon Period, Vol. I*, London: British Museum Publications

Wise, F. (1742), *Further Observations on the White Horse and other Antiquities in Berkshire*, Oxford: Thomas Wood

Woodward, R. (2004), *Military Geographies*, London: Blackwell

Yoffee, N. (2005), *Myths of the Archaic State: Evolution of the Earliest Cities, States and Civilizations*, Cambridge: Cambridge University Press

Yorke, B. (1984), 'The Bishops of Winchester, the Kings of Wessex and the development of Winchester in the Ninth and Tenth Centuries', *Proceedings of the Hampshire Field Club and Archaeology Society* 40, 61-70

Yorke, B. (2013), 'West Saxon Fortifications in the Ninth Century' in John Baker, Stuart Brookes and Andrew Reynolds (eds.), *Landscapes of Defence in Early Medieval Europe*, Turnhout: Brepols, 91-110